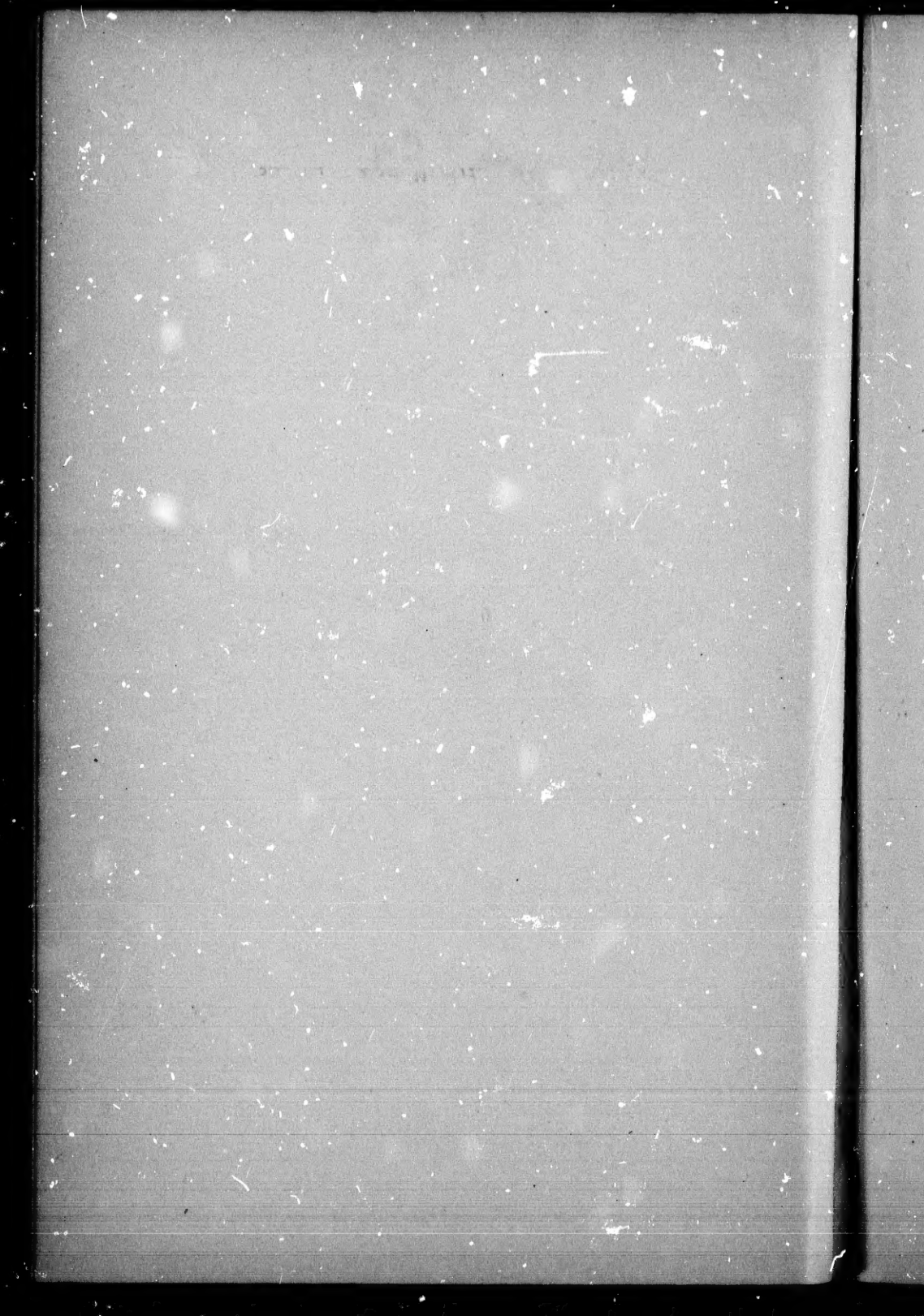




THE STORY OF THE WEST SERIES
EDITED BY RIPLEY FITCHCOCK

THE STORY OF THE RAILROAD

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The Engineer.
(Running the line with a transit on the Plains.)

THE STORY OF THE RAILROAD

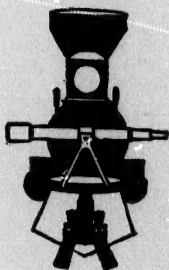
BY

CY WARMAN

AUTHOR OF

TALES OF AN ENGINEER, THE EXPRESS MESSENGER,
SNOW ON THE HEADLIGHT, THE WHITE MAIL,
PAPER-TALK, ETC.

ILLUSTRATED



NEW YORK
D. APPLETON AND COMPANY
1898

L.C.

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TO

THE PATHFINDER,

Whose back above the Desert bent,
Who set the stakes to mark the Trail—
The Trackman, and the President,
And all the Children of the Rail.

CY WARREN.

"When I think how the railroad has been pushed through this unwatered wilderness and haunt of savage tribes; how, at each stage of the construction, roaring, impromptu cities full of gold and lust and death sprang up and then died away again, and are now but wayside stations in the desert; how in these uncouth places pig-tailed pirates worked side by side with border ruffians and broken men from Europe, talking together in a mixed dialect, mostly oaths, gambling, drinking, quarreling, and murdering like wolves; how the plumed hereditary lord of all America heard in this last fastness the scream of the 'Bad Medicine Wagon' charioting his foes; and then when I go on to remember that all this epical turmoil was conducted by gentlemen in frock coats, and with a view to nothing more extraordinary than a fortune and a subsequent visit to Paris, it seems to me, I own, as if this railway were the one typical achievement of the age in which we live; as if it brought together into one plot all the ends of the world and all the degrees of social rank, and offered the busiest, the most extended, and the most varying subject for an enduring literary work. If it be romance, if it be contrast, if it be heroism that we require, what was Troy town to this?"—ROBERT LOUIS STEVENSON, in *Across the Plains*.

EDITOR'S PREFACE.

THE Story of the Railroad, like other volumes in the Story of the West series, is, in its essence, the story of a man. As to the man—that is, the typical figure to be chosen as the personified genius of transcontinental railroad building in the empire west of the Missouri—there may very well be a variety of opinions. The first white men to traverse the future pathways of Western railroads were Spaniards, whose suggestive rôles were those of a fugitive and a soldier seeking gold. Long after them came the true explorers, Lewis and Clarke, Pike, and others whose story is to be told in another volume of this series.

In the earlier years of the republic there were statesmen, like Gallatin, who dreamed of a transcontinental highway, and later private citizens, like Whitney, who were pioneers in a movement which developed slowly but logically, with its accompaniments of congressional oratory and long-sitting committees, and of explorations, reconnaissances, surveys, and bulky reports, and the various military, political, and commer-

cial arguments which were accentuated by our civil war. All this represented a growing recognition of the inevitable, a recognition in which politicians were frequently outstripped by private citizens, some from the West, then so-called, with an actual knowledge of the Western country, and some from the East, led on by the chances for new investments. The man of the West and the Eastern financier with his European connections co-operated more closely than the usual railroad history indicates. The canvas is crowded with figures—the explorer, scout, trapper, hunter, soldier, the propagandist, politician, lobbyist, banker, promoter, and European capitalist; but these were not the men who did the work, although through them the work became possible. The Story of the Railroad, as Mr. Warman has sketched it in his graphic pages, is not a history of proselyting, of finance or of politics, or of the scientific side of construction. Very naturally, these topics and other essential phases of this great subject are touched upon, but in large part this book is the story of the strange life which began with and accompanied the building of a trans-continental highway. Armies of men under thousands of officers shared this life, and vanished when their work was done, leaving the ashes of their camp fires and unnumbered nameless graves. Surveyors, engineers, superintendents, foremen, bosses, track layers, shovellers on the dump, and their companions of rank

high and low, all toiled together to clear a way across the buffalo preserves of the Indians and through the secret places of the mountains. It was a series of titanic labours, man pitted against Nature in the instant shock of contest, and it is here, I think, that we find the typical figure in the engineer who sought out the way and built the road. It was the engineer who traced the route, making his painful progress across the wild plains, sometimes guarded by soldiers, sometimes trusting to Providence and his "gun." It was the engineer who climbed over the ice of mountain streams, who was let down from crags by ropes, who crawled along trails known only to the mountain sheep, and, daring storms, starvation, and the vengeance of the red men, penetrated the mountain fastnesses rarely entered even by his predecessors, the trappers, hunters, and scouts of the heroic age of the West. His mission was a practical one, but none the less romantic. The level and chain, the six-shooter and the frying pan, may be less picturesque than helmet, sword, and lance, but they may stand for an infinitely finer heroism. Only McAndrew's "damned ijjits" for whom the poetry and romance of the sea have vanished with the passing of white sails could fail to see the romance of transcontinental pathfinding, the heroic aspect of the men who led the way. Some of these engineers sacrificed their lives to duty as simply and nobly as any soldiers behind their coun-

try's flag. They were the soldiers of civilization, opening a way that peace might follow. Some of them passed from reconnaissances and preliminary surveys to the work of construction, ruling armies of men in wild camps which were constantly moving onward. They were responsible for the expenditure of fortunes. Their followers knew little other law than their word, and there were times, as in the early history of the Union Pacific, when no authority seemed to avail against the recklessness of life at the head of the rails. The engineer in charge was the local court of last resort for all questions, from construction in its manifold details and the incessant troubles with contractors to complaints of the commissariat. There were higher officers behind him, but he was the chief executive on the spot, the general commanding in the field. Some of these engineers have remained as high officials of transcontinental lines, and others sacrificed themselves to the large tasks of construction, or have passed elsewhere. Whatever their fate, their mission was a great one, an historical epic which Americans should preserve. Indirectly, therefore, since the field is a vast one, we may read in this volume the story of the engineer.

If the title suggests a special railroad, the difficulties inseparable from such a choice will be evident, even if the plan of this series admitted of the categorical history of one branch of a subject rather than the presentation of the type, the genius of the general

theme. The Union Pacific, naturally the first thought, is linked at the outset with politics, the Crédit Mobilier, and continuing financial complications, and the general theme is perhaps somewhat hackneyed. The checkered career of the Northern Pacific has been described in detail by Mr. E. V. Smalley, and the Southern Pacific has lacked many of the phases which have added interest to other roads—for example, the Atchison, Topeka and Santa Fé. The picturesqueness and freshness of the Santa Fé's story have induced Mr. Warman to make this in a sense the typical railroad of his book. Since, however, he is presenting pictures of life rather than detailed records, he has drawn his illustrations of the life of railroad builders from the inner history of several of the earlier transcontinental lines of the West. The result is a general view of characteristic phases of this life which has a completeness, from the standpoint of human interest, not realized before, and impossible of realization either in the orthodox railroad histories or in fugitive anecdotes of construction-camp life. That is not a life to be described by hearsay or at arm's length, and the vividness of Mr. Warman's descriptions shows him to have been a part of that which he records in his book. The figures, dates, names, and dry facts, which might readily be multiplied to so appalling an extent in a detailed history of such great enterprises, Mr. Warman, as far as possible, has happily put aside in favour of a

personal interest, which will give to his readers an appreciation of this phase of our Western history that statistics and bare records can never yield. He has taken account of the vast tasks of organization and general direction in the East as in the West, but his book is dedicated first of all to those

" Whose backs above the desert bent,
Who set the stakes to mark the trail."

The Story of the Railroad might be traced back to the primeval convulsions which rent openings in mountain walls, and the early workings of the water courses which cut pathways for the engineers. Without hyperbole, however, we can see in the trails of elk and other animals suggestions and even paths which pointed the way for the rails. The mountain lore of animals and the red men was inherited by the early trappers, hunters, and fur traders of the heroic age of the West—men like Chouteau, Sublette, and scores of others. Many of them preceded the better-known figures of scouts like Kit Carson in a life as adventurous and fearless as that of the Norsemen, but their sagas have rarely touched poet or historian. It was the curious wisdom of ancients of the mountains like Jim Bridger that helped to solve many a dubious question in the building of the earlier transcontinental lines. They acted their part in aiding to map out railroad routes. They had acted a similar part before in piloting emigrant wagons, or accompanying the caravans of

the Santa Fé trail, or in furnishing counsel as to the route of the Pony Express. But this time their hands were turned against themselves, for the railroad to which they gave of their quaint wisdom meant the passing of scout, trapper, and wild hunter as surely as the passing of the buffalo. Yet, as I have said, these shaggy heroes of other days were not the first of the white men to precede the locomotive. Nearly four hundred years ago the piteous figure of Alvar Nuñez Cabeza de Vaca staggered across the plains of Texas, and his desperate course possibly anticipated in a general way the route of the Southern Pacific. A few years later Coronado, marching northward from Mexico to Cibola, and eastward in search of Quivira, traversed a portion of the future pathway of the Atchison, Topeka and Santa Fé. Both the fugitive colonial officer and the soldier represented the first fruits of that wonderful search for a western passage to the Indies which sought an opening from the northern ice of Labrador to the Straits of Magellan, and effected among other results the discovery of Columbus. The thought which spurred Columbus, Amerigo Vespucci, Cabot, Frobisher, and Magellan reappears in our own early discussions of a transcontinental highway as a means of opening up trade with the Orient. It is curious to find this argument reiterated in the earlier discussions of the subject, to the neglect of the enlarging possibilities of our own West, but there are

those who will urge that the future may justify the argument. The Spanish lust for gold discovered a Western empire, and the last fragments of that empire are now wrested from incompetent hands by the people of the land which literally blocked the way of the earlier treasure seekers, and now turns its own face toward the Orient. In the eternal chase of the golden fleece the Spanish explorers and *conquistadores* have found worthier successors, and the earlier dreams of transcontinental railroads as highways to the Orient seem to promise a larger measure of realization. On what may be termed the picturesque side of history the suggestiveness of the theme is obvious.

A word is called for regarding the illustrations of Mr. Warman's book. It would have been easy to multiply pictures of scenery and of deserving features of mountain construction. Some of these have been selected with a view not merely to their pictorial effectiveness, but rather to their value as suggestions of problems offered in the life of the engineer. Of this life and the character of construction camps photography furnishes little, and Mr. Clinedinst has therefore made a very careful review of a theme which was not new to him, and his use of the material which he has collected has placed before us certain personal phases of the theme with a directness and vividness which comport most happily with Mr. Warman's brilliant work.

R. H.

AUTHOR'S PREFACE.

THIS book is the fourth volume of The Story of the West series, and consequently the roads whose history is chronicled in its pages are, with a single exception, Western lines—with the understanding that there is no West east of the Missouri River. The one exception is the Canadian Pacific, the last and longest of the through lines across the continent, connecting the Atlantic with the Pacific; but the eastern section of the Canadian Pacific was small indeed when the road was being built.

Since the completion of the pioneer roads, a number of extensive systems of railroad have penetrated what a half century ago was the uninhabited and apparently uninhabitable West. To tell the story, interesting though it might be, of all or any one of them in detail, would be to take the reader over the same scenes, showing the same pictures again, only softened and subdued by the civilizing influence of the locomotives of the pioneer roads.

A number of these newer, shorter lines, linked

together by close traffic arrangements, make through lines across the continent, which are as swift and safe and sure, as comfortable and convenient for the traveller as a through line under one management; for travellers are no longer expected to change cars in a civilized country.

Of these comparatively new lines I have endeavoured to make brief mention in the closing chapter of this book.

Lack of space prevents the publication of the names of the directors, presidents, ex-presidents, passenger agents, and others who have helped in the making of this story. To each and all of them, however, the author is deeply indebted.

CY WARMAN.

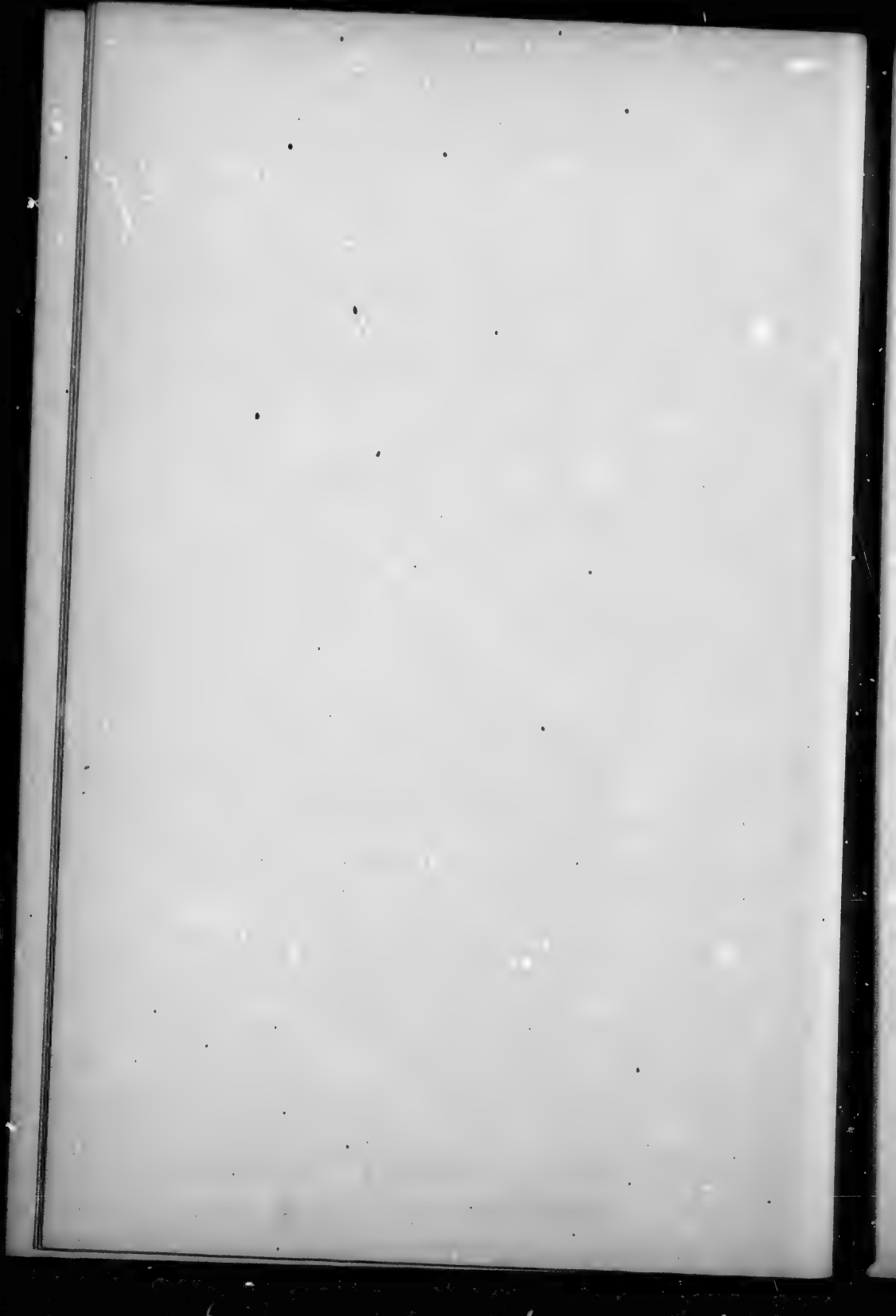
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THE STORY OF THE RAILROAD.

INTRODUCTION.

THE PASSING OF THE WEST.

AT MORNING.

THE West awoke, breakfasted, and went about the day's work or the day's pleasure. Up to that time the bountiful earth had supplied all the wants of all its creatures, and there was no reason to fear for the future.

All the men were red men: wild nomadic men, who gave no thought to the morrow. They had found the earth well stocked with the necessaries of life, and had helped themselves from day to day with no perceptible diminution of the supply.

Wild fowl filled the air, wild animals the earth, and all the rivers were full of fish. There was plenty, and the people were content. Walled in on the west by the Rocky Mountains, cut off from the east by a mighty river, the nomads' empire swept down from the British possessions to the Gulf of Mexico. All up and down the great plains, from north to south, from

south to north, rolled billows of buffalo, the apparently inexhaustible commissariat of the red man, as irresistible as the gulf streams of the ocean.

Presently a white man stood on the bluffs above the Big Water, shaded his eyes, and looked away to the west. Soon another joined him, and the two looked long and intently upon the wild, glorious scene beyond.

Now the late comer looked back and beckoned, and when they had been joined by other adventurous spirits, they let themselves silently into the river and swam across.

The red men saw them coming, and, remembering the stories of the conquest of the East, strove to beat them off. Some were killed, some crossed safely, while others, having been pushed into the water, swam back for re-enforcements.

Meanwhile another band of white men had crossed farther down, and were trafficking with the dark men of the southwest.

The white men were a jolly lot, for the most part, who preferred traffic to war. They made friends and drunkards of many of the red men, and while a great many were killed off, they grew in number and began building houses as though they intended to stay.

AT NOON.

The West was agitated. Everywhere the natives were rallying to drive the intruders away. Still they came. Across the Big Water they were rowing, wading, and swimming. The buffalo, feeding upon the great plains, put up their heads and stared.

If the nomads tried to escape to the north they met and fought with the fur catchers from Canada. Cowboys, with deadly short guns, were riding from the south, while hundreds of scouts, miners, and mountaineers, with far-reaching rifles, were sliding down the slope of the Rocky Mountains.

In a little while the battle that had begun on the banks of the Missouri was raging to the Rockies. If a white man fell, two came to take his place. If a red man fell, his place was empty, but they fought on doggedly.

Presently other white men came on horseback, hundreds of them, all dressed alike. The white chiefs wore good clothes, and swords with hilts of gold. They brought their blankets and stayed, and then came wagons with guns in whose mouths a papoose could hide his head.

The red men lost heart.

To add to the confusion, they fought among themselves. Many joined the white men, drank, dressed up, swore awkwardly, and killed their kin.

As the afternoon wore away men began to build houses. Two men with a chain and four guns measured the desert, planted stakes, and put "paper-talk" on them. Others followed, graded a road, threw down wooden cross-ties and iron rails. The wild kine of the prairie put down their heads and ran.

In the wake of the trail makers came other thousands of whites. They quarrelled among themselves about the location of cities yet unborn, county seats, and so on, and fell to killing one another as the red men did.

Still they came. Like clouds of grasshoppers they flooded the West, planted trees, and built towns along the Iron Way.

AT NIGHT.

The sun was sinking behind a cloud.

Here and there upon the plains knots of men were still fighting. Many of the newcomers had left off the killing of men and turned to the buffalo. Some were killing for meat, some for robes, others took only the tongues, while thousands killed for the sake of the slaughter. More thoughtful men were putting up tents for the night, for they were weary and in need of rest.

The fighting was desultory now. Men busy about their new homes stumbled over the warm bodies of neighbours lately slain. Women, coming up from the river with pails of water, were waylaid and scalped.

Children were snatched from the dooryards and carried away into captivity by the desperate red men who had lost the fight.

Presently it grew quiet. The setting sun burst through the clouds and bathed the earth in molten gold. In the twilight men buried the dead. The bones of the buffalo lay in white heaps along the new trail.

In the gathering gloaming groups of men sat round the camp fires and talked it all over. Even those who had taken part in the great drama were amazed, so swift and awful had been the work.

The plains had grown so suddenly silent that it frightened them. They hearkened, and heard only the soft sighing of the wind in the wild grass. "This place is dead," said an old scout, and folding his blankets he strode away in search of the West.

Already the fur catchers were going back to the wild streams that thread the northern forests. The cowboys had long since taken the trail to Texas.

Suddenly the stillness was broken by the wild scream of an iron horse along the Iron Trail. The few remaining red men threw themselves trembling, upon the trembling earth as the great black steed, with heart of fire and breath of flame, roared by. The white men watched it tip over the crest of the continent, and the West of yesterday was gone forever.

The moon looked down upon the conquerors. They had cast their arms aside and were sleeping peacefully, for across the plains that day had been traced in blood—

“TRANQUILITY.”

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CHAPTER I.

THE ORIGIN OF THE IDEA.

THE first report presented to the Congress of the United States on the construction of a railroad to the Pacific was made in 1846 by the Hon. Sidney Breese, Chairman of the Committee on Pacific Lands.

This was the first result of the labours of Asa Whitney, a New York merchant, who had become an enthusiast on the subject of a Pacific railroad. Between 1830 and 1835, while in China, Mr. Whitney read of the wonderful experiments in railroad building in England, and began at once to reflect upon the enormous changes the new invention made possible. It would be an easy matter to cross the American continent and connect Europe with the Orient by way of the Pacific. As the dream grew upon him, he began to gather statistics concerning the trade of China, Japan, and India. He seems to have devoted months, if not years, to this work, coming to America full of figures and faith in his great scheme.

He proposed to build a road from Lake Superior to Puget Sound in consideration of a grant of land from the Government along the whole line. Whitney began his public work in America upon the great project in 1841. After four years of work and worry he

secured a hearing before Congress. Seven more years, and then, in 1853, Congress, with more or less reluctance, made an appropriation for the first preliminary survey.

For twenty years or more Whitney clung to his idea with the faith of an enthusiast, and then, at last, help came. But it came too late and too slowly for him. He had fretted the best part of his life away. His private fortune had been sacrificed. Men had begun to regard him with pity, so thoroughly had he lost himself in the pursuit of his dream. His plan was not feasible, but he gave his enthusiasm, his fortune, if not his life, to the work—and passed on. Almost without being missed, he disappeared from the scene, the first martyr to the great enterprise.

The work begun by Whitney was taken up by others.

Mr. E. V. Smalley declares that as early as 1834 Dr. Samuel Boncraft Barlow advocated the construction of a railroad from New York to the mouth of the Columbia River, with money secured by direct appropriation from the Treasury of the United States. Upon this claim General W. T. Sherman, in his summary of transcontinental railroads constructed up to 1883, comments as follows:

“But in presenting this claim to priority, is it not possible that the fact has been overlooked that Dr. Barlow’s paper in the *Intelligence*, of Westfield, Mass., was called forth by a series of articles upon the same subject published in the *Emigrant*, of Washtenaw County, Michigan Territory? And is not, therefore, that unknown writer of these articles really en-

titled to whatever credit attaches to priority of suggestion?"

General Sherman says, in the summary referred to, that it would now be impossible to ascertain who was the first to suggest the construction of a railroad to connect the eastern portion of our country with the Pacific coast, and adds that the idea probably occurred in some form to several persons. It is a fact, however, that long before any man had known the luxury of travelling by rail the question of connecting the Atlantic with the Pacific by means of a "steam carriage" was being agitated in this country.

The first railroad was built by the Romans. The track was of cut stone.

The steam engine was invented by James Watt, in 1773.

Probably the first locomotive was invented by Richard Trevethick. It was tried and failed in London in 1804. George Stephenson opened the Killingworth, a colliery railroad, in 1814.

The Stockton and Darlington, in England, twelve miles in length, was the first railroad to carry passengers. It was opened for freight on September 27, 1825, and for passenger traffic in October of the same year.

Peter Cooper experimented with a little engine of his own on the Baltimore and Ohio in 1829, and claimed that on the trial trip he ran away from a gray horse attached to another car.

The modern railroad was created by the Stephenson, father and son, when they built the Rocket, the first locomotive with a "blower," in 1830.

The first locomotive run over an American railroad was driven by Horatio Allen in 1831.

As early as 1819 Robert Mills proposed, in his book on the internal improvements of Maryland, Virginia, and South Carolina, to connect the two oceans by a steam road "from the head navigable waters of the noble rivers disemboguing into each ocean."

With the lessons learned from the years that followed the agitation of the question by Mr. Whitney and others we are able to see now what bitter disappointment was in store for the enthusiast who pinned his faith to the traffic of the Orient. We know now that the revenue derived from the Asiatic trade—in fact, from all through business—would not do much more than supply the tallow required to cool the pins that were heated by the sands of the desert through which the road was to run. Veritable dreamers were the early friends of the Pacific Railroad. Themselves farther from the pay streak than the Atlantic was from the Pacific, they were ever scolding Congress for its tardiness, and capital for its timidity.

During all the preliminary work the great aim of the road was to reach India, China, and Japan.

Benton, Clark, and others in Congress were ever pointing to the East by way of the West, and crying in the drowsy ears of the nodding Speaker that "yonder lay the road to the Orient." It was not until the discoveries of gold in California that Congressman Sargent, of that State, began to hint guardedly that the West itself was worth going after. To be sure, nobody took him seriously. He was merely tooting his own

horn, men said, and they continued to talk Asia, to talk against the scheme, or not to talk at all. Nobody dreamed of the possibilities of the wild West. No prophet attempted to foretell the story of the vast empire that would awaken with the first magnetic touch of the steel-shod feet of the iron horse.*

No man would have believed, at the close of the war of the rebellion, that within a quarter of a century fifteen million people would be living in the territory between the Missouri and the Pacific Ocean. A man who would have predicted in 1861 what Mr. Sidney Dillon stated as a fact just thirty years later, would have been without honour in any country—namely, that the railroads would change not only the climate of the West, but the character of the soil as well; that the farmer would plant trees, and that these trees would check the bitter winds, and also cause an increased rainfall; that the furrowed fields, which formerly offered to the sky but one uniform, smooth, and iron-hard surface, would create a rainfall by their evaporation, and invite it by their contrast of temperature; that, in short, with the advent of the railroad upon the Western plateaus the climate would become milder, the cold less destructive, and the rainfall greater.

Reaching across the great American desert for the trade of the Orient, the dreamers never dreamed that

* "If it had been proposed before the war that the United States should lend its credit and issue its bonds to build a railroad two thousand miles long across a vast, barren plain only known to the red man, uninhabited, without one dollar of business to sustain it, the proposition alone would have virtually bankrupted the nation."—GENERAL DODGE.

these vast reaches of land, then considered uninhabitable, would soon be occupied by a rapidly increasing population, and that, when the road was built, ninety-five cents of every dollar earned would come from local, and only five cents from through traffic.

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CHAPTER II.

EARLY EXPLORATIONS AND SURVEYS.

UNTIL a few years ago it was generally conceded that a young engineer in the employ of the Mississippi and Missouri River Railroad was the pioneer in surveying the Pacific roads. This was in 1853. When the war broke out this young man boxed his outfit and entered the service of Uncle Sam. When the war was over he asked to be relieved, and this is the answer that came to him:

“HEADQUARTERS MILITARY DIVISION OF THE MISSISSIPPI,
ST. LOUIS, *May 1, 1866.*

“MAJOR-GENERAL DODGE.

“DEAR GENERAL: I have your letter of April 27th, and I readily consent to what you ask. I think General Pope should be at Leavenworth before you leave, and I expected he would be at Leavenworth by May 1st, but he is not yet come. As soon as he reaches Leavenworth, or St. Louis even, I consent to your going to Omaha to begin what, I trust, will be the real beginning of the great road. I start to-morrow for Riley, whence I will cross over to Kearney by land, and thence come into Omaha, where I hope to meet you. I will send your letter this morning to Pope's office, and indorse my request that a telegraph message be sent to General Pope

to the effect that he is wanted at Leavenworth. Hoping to meet you soon, I am,

“Yours truly,

“W. T. SHERMAN, M. G.”

And so it happened that the outfit that was boxed by young Dodge in 1861 was unpacked by General Dodge in 1866. So thoroughly had he become interested in the great project of a road across what was then called the American Desert, that the moment the trouble was over at the South, he resigned his position to resume his work where he had left off.

In a paper read before the Society of the Army of the Tennessee at its twenty-first annual reunion, at Toledo, Ohio, on September 15, 1888, General Dodge modestly disclaimed the credit of having been the first to explore the West in the interest of a transcontinental railroad. Upon that occasion he declared it to be his belief that Lieutenants Warner and Williamson were sent into the Sierra Nevada Mountains at the suggestion of General W. T. Sherman (who was chairman of the meeting then being addressed by General Dodge), adding that “that was the first exploring party ever sent into the field for the special purpose of ascertaining the feasibility of constructing a railroad on a portion of the line of one of the transcontinental routes, and that the exploration preceded, at least for years, the act of Congress making appropriations for exploration and surveys for a railroad route from the Mississippi River to the Pacific Ocean.”

In the first volume of his Memoirs, on page 79, General Sherman says: “Shortly after returning from

Monterey I was sent by General Smith up to Sacramento City to instruct Lieutenants Warner and Williamson, of the engineers, to push their surveys to the Sierra Nevada Mountains, for the purpose of ascertaining the possibility of passing that range by a railroad, a subject that then elicited universal interest. It was generally assumed that such a road could not be made along any of the immigrant routes then in use, and Warner's orders were to look farther north up the Feather River, or some of its tributaries. Warner was engaged in this survey during the summer and fall of 1849, and explored to the very end of Goose Lake, the source of Feather River."

It will be seen here that General Sherman, with characteristic modesty, takes no credit for having ordered or even suggested this work, but the many evidences of his friendship for the Pacific railroad enterprises bear out the suggestion of General Dodge that he was the moving spirit in the work. When Lieutenant Warner, the real pioneer explorer of the Pacific roads, had reached Feather River, after many skirmishes with the Indians, his outfit was surrounded by the savages, and after a brief resistance and a stubborn stand he fell—the second martyr to this great enterprise.

Going back to the Missouri River, we find young Dodge and a small corps of assistants crossing from Iowa to Nebraska on a raft in 1853. This was a private survey ordered by Henry Farnum and T. C. Durant, the contractors and builders of the Mississippi and Missouri, now the Chicago and Rock Island Pacific Railroad. Peter A. Dey was the chief under whose instructions Dodge crossed the Missouri,

It is an interesting fact that the company ordering this exploration of the plains had no idea or intention of building a road there. What it wanted to find was the most feasible termini, or rather the most probable starting point for the Pacific Railroad when it should be built, in order that they might end their own road opposite that point on the Iowa side.

When young Dodge arrived at Omaha the Indians surrounded his wagons and took what they wanted, calling the white men "squaws," and showing in true Indian fashion their contempt for these adventurous young men. By being patient and liberal, Dodge managed to escape with his scalp. To show that he was not afraid, he slept the first night in the tepee of an Omaha Indian—whistling through a graveyard, as it were. Dodge soon acquired the careless habit of riding far in advance of his outfit. He had been on the plains but a few days when he found himself alone on the banks of the Elkhorn River. It was noon. "Being tired," he tells us, "I hid my rifle, saddle, and blanket, strolled out to a secluded spot in the woods with my pony, and lay down to sleep. I awoke, and found my pony gone. I looked out upon the valley and saw a native running off with him. I was twenty-five miles from my party, and was terrified. It was my first experience, for I was very young. What possessed me I do not know, but I grabbed my rifle and started for the Indian, hallooing at the top of my voice. The pony held back, and the Indian, seeing me gaining upon him, let the horse go, jumped into the Elkhorn, and put that river between us. The Indian was a Pawnee. He served under me in

1865, and said to me that I had made so much noise that he had been a 'heap scared.'"

Upon this occasion Dodge extended his surveys to and up the Platte Valley, to ascertain whether any road built on this central—or then northern—line would, from the formation of the country, follow the Platte and its tributaries over the plains, and thus overcome the Rocky Mountains. Subsequently, under the patronage of Mr. Farnum, he extended the examination westward to the eastern base of the Rocky Mountains and beyond, examining the practical passes from the Sangre de Christo to the South Pass, and made maps of the country, developing them as thoroughly as could be done without making purely instrumental surveys. Mr. Farnum and his associates had conceived the idea of working up a scheme west of Iowa that would induce investors to aid them in carrying their project across Iowa to the Missouri River, which was still far away from the end of their track. The practicability of the route, the singular formation of the country between Long's Peak to the south and Laramie Peak and the Sweetwater and Wind River ranges to the north, demonstrated to Dodge that the road must eventually be built through this region. The young engineer reported these facts to Farnum, and through the latter's efforts and those of his friends the prospect of the Pacific Railroad began to take shape. Having concluded his preliminary survey, young Dodge returned to Council Bluffs, thoroughly convinced that the road he represented ought to end there, and that the Pacific Road, if ever built, would begin at Omaha, opposite the Bluffs.

General Dodge relates that after dinner, while sitting on the stoop of the Pacific House, a tall man came and sat beside him. He appeared to be very much interested in the work that the young man had been doing, and in a little while was drawing from the engineer the secrets that were intended for his employers. The sweet, homely face and kindly manner of the man were irresistible. He seemed to have no special interest in any of the railroads that were then reaching out toward that vast unknown region called the West, but he was interested in the general development and up-building of the country, and deeply in sympathy with all the human race. His interest could not have been broader or deeper if he had owned the whole country. In fact, the impression left upon the mind of young Dodge was that he had been engaged in a confidential conversation with Uncle Sam.

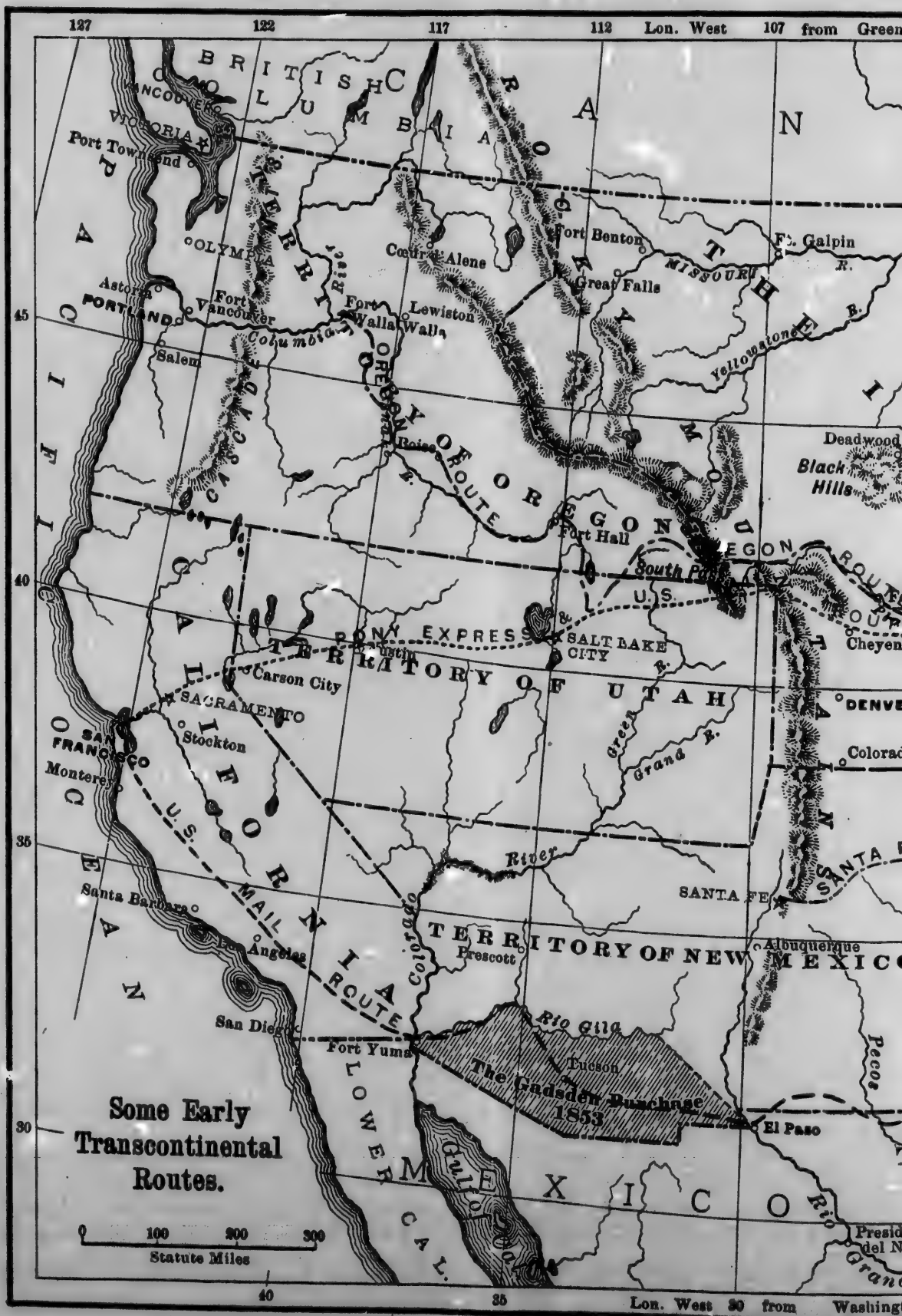
Finally, when the tall man got up and moved away, he carried with him a story that had cost the engineer months of hard work. In thirty minutes he had explored the plains from the Missouri River to the Rockies. He had learned the secrets of the desert and could tell you the names and the height of half a dozen peaks and passes in the far-off hills. The engineer knew that he knew these things, and yet he was not alarmed. He felt sure that a man with so sad, so kind a face, would be wholly incapable of taking advantage of information so obtained to the detriment of one who had trusted him.

Later, when the war had demonstrated the road to be a military necessity, and the Government came to the rescue with grants of land, surveys were extended

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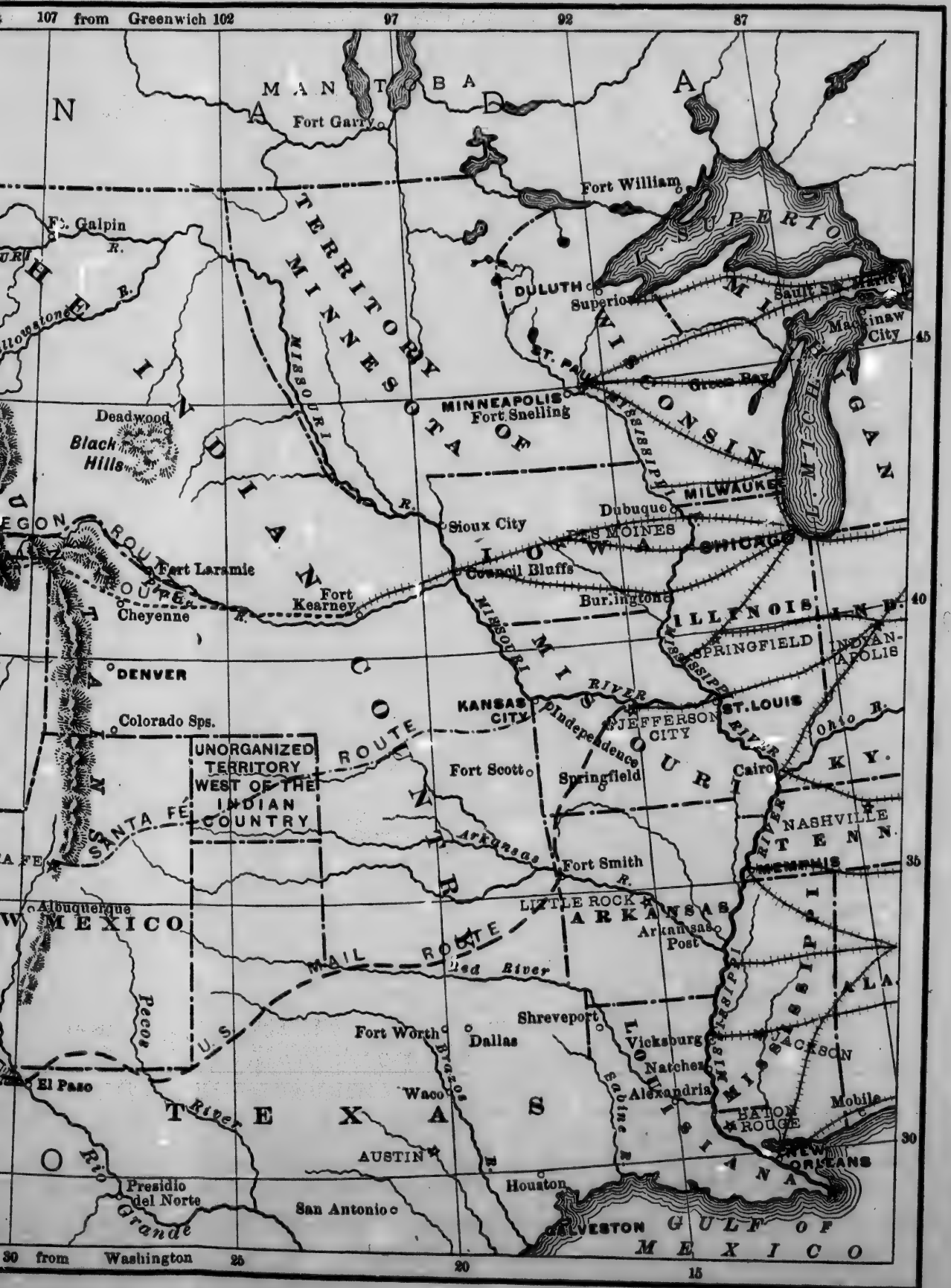
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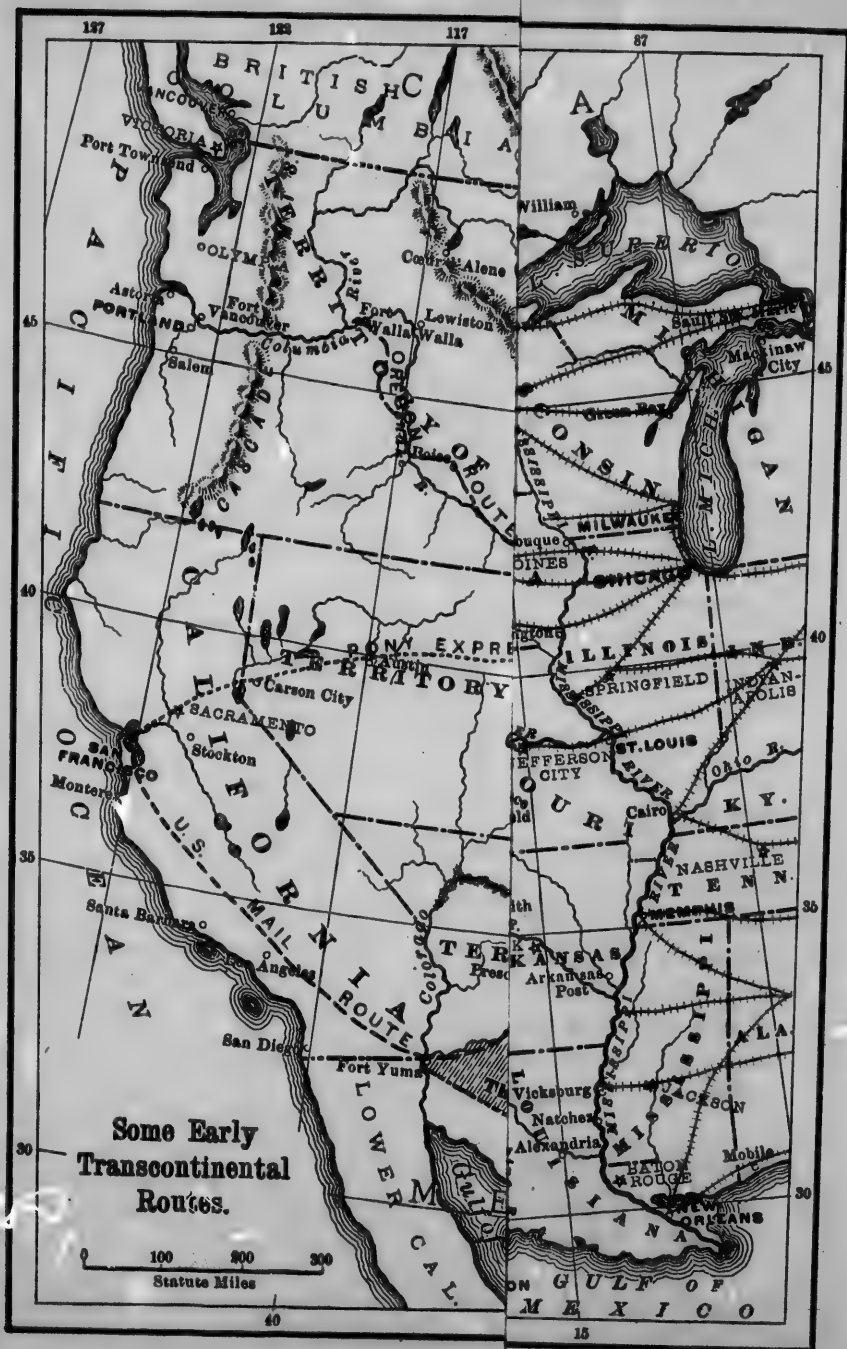


Some Early
Transcontinental
Routes.

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Statute Miles

Lon. West 30 from Washing





through the country previously explored, its resources developed, and its capabilities for the building of a railroad to the Pacific fully demonstrated. Within a strip two hundred miles wide, reaching from the Missouri River to the California State line, along the forty-second parallel of latitude, fifteen thousand miles of instrumental lines were run, and over twenty-five thousand miles of reconnoissances made. Countless other lines were run by the Government engineer. These explorations and surveys covered the entire West like the stripes on Old Glory, and included every possible and many impossible routes between the Isthmus of Panama and Canada. The explorers gave no thought to the value of a line as a means of opening up and developing the West. True, the gold excitement in California in 1849, the possibility of transporting a few thousand fever-heated fortune seekers, and the admission of California as a State, caused men to take a second look in that direction, but the real objective point was still China and Japan.

In the seven years ending in 1860 Congress spent a vast amount of money in exploring the West, and when the work had been completed, or, rather, when it stopped, the result was rounded up, profusely illustrated, published, and distributed to the people free, and in that way men began to know the West.

These surveys made by the Government now became the basis for all future explorations of all the trans-continental lines, save of the Union Pacific, then known as the forty-second parallel route, and the Santa Fé, which followed the old Santa Fé trail.

The country through which the Union Pacific

passed was the scene of more work than any other part of the West. This line was largely developed by private enterprise, and, in addition, the Government spent a great deal of time and money upon it. It was always General Dodge's favourite route, and whenever he could steal a day he would gallop over it, or a part of it, until he knew it all. General Dodge always contended, however, that the present route was not, from an engineering point of view, the true line to the Pacific. The true line, he declared, was up the Platte and Sweetwater to the South Pass, and then down the Snake River (where the Oregon Short Line was built later) to the Columbia River, thence down that noble stream to tide water at Portland. But from a commercial point of view the Salt Lake line is the better. It is also claimed by the friends of the Union Pacific and Central Pacific that they constitute the most practicable line across the continent—the shortest, quickest, of lightest curvature, and lowest grades and summits. The maximum grade over the Black Hills is eighty feet to the mile. In two or three years of constant pounding away at these hills the explorers failed to find a pass that would let them over without crowding the limit allowed by Congress, because the mountains were so steep and high. One of the finest natural approaches that ever propped a range was right there all the time, but not where engineers had been in the habit of looking for a pass. In one of his speeches General Sherman has publicly declared the discovery of that pass a stroke of genius,* but Gen-

* "I was particularly interested in that part of General Dodge's paper wherein he described his discovery of the way to cross the Black Hills beyond Cheyenne (there was no Cheyenne then). He

eral Dodge, who discovered it, says that it was purely accidental, and he tells an interesting story of how it happened.

In the spring of 1863, while at Corinth, Miss., he was ordered by General Grant to go to Washington to see the President of the United States. "When I received the summons," he writes, "it alarmed me. I had armed, without authority, a lot of negroes and organized them into a company to guard the Corinth Contraband camp. It had been pretty severely criticised in the army, and I thought this act of mine had partly to do with my call to Washington."

Upon reaching the capital General Dodge called upon the President, but to his surprise Mr. Lincoln said nothing about the negroes at Corinth. He talked about the struggle at the South, the condition of the army in general, and finally asked his visitor if he recalled a conversation that had taken place six or seven years previously upon the stoop of the Pacific House at Council Bluffs, Iowa, when General Dodge was not a general, and before Mr. Lincoln had been much thought of as the President of the United States. The general assured the President that he remembered the conversation very distinctly, and that it was the only

was limited by law to 116 [General Dodge informed the writer that the limit was really 216] feet grade to the mile. Instead of following the valley of Lodge Pole Creek, as all previous engineers had done, he chose the upper or anticlinal line, instead of the lower or synclinal line. This was a stroke of genius, by which he surmounted the Rocky Mountains at a grade of eighty feet to the mile, whereas by any other route then known he would have been forced to a grade of 200 feet, or to adopt short curves through Laramie Pass."

time in his life that he had given up his employers' secrets to an outsider. The President smiled quietly, and said: "Well, you know, under the law, it is my business to fix the eastern terminus of the Pacific Road, and that is one of the things I want to talk about with you."

General Dodge told Mr. Lincoln that in his capacity as an engineer in the service of the Mississippi and Missouri Railroad he had selected Council Bluffs. It is probable that Mr. Lincoln knew this, for he seems always to have known in advance what was the thing to do in all circumstances. As a matter of fact, for nearly a decade all roads reaching toward the West and desiring a connection with the Pacific Railroad that was to be had been funnelling in toward Council Bluffs. And so the President very naturally fixed the terminus of the Pacific road at Council Bluffs. When that had been done, he told his visitor plainly that the Pacific Railroad had become a military necessity, that he was very anxious to have the road commenced and built, and that it was upon that matter mainly that he desired to consult the general. In discussing the means of building the road, General Dodge urged that no private combination should be relied upon, but that it must be done by the Government. General Sherman had always been of that opinion. In a letter dated January 6, 1859, addressed to the Hon. John Sherman, M. C., and made public through the National Intelligencer, he said: "It is the work of giants, and Uncle Sam is the only giant I know who can, or should, grapple with the subject."

The President said frankly that the Government had

its hands full. Private enterprise must do the work, and all the Government could do was to aid. What he wished to know of his visitor was, what was required from the Government to assure its commencement and completion.

When the matter had been discussed at length, it was decided that General Dodge should go to New York and consult there with the people who had the question before them. One of the results of this visit to New York was the framing of the bill of 1864, which was duly passed, and under which were built the Union and Central Pacific roads, constituting one continuous line from the Missouri to the Pacific.

During the years from 1853 to 1860 the political condition of the country made it impossible to induce capital to undertake the building of a railroad across two thousand miles of desert. The agitation of the slavery question occupied the attention of Congress to the exclusion of everything else, and out of the sectional jealousies engendered by that controversy arose differences as to the route to be adopted. The South wanted a southern route, the North a northern one, and there seemed to be no way of reaching a compromise. The South was then in control of the Government, and could prevent the location of the line at the North, while northern and eastern capital could not be enlisted for a southern route indorsed by Jefferson Davis, who was then Secretary of War. The political tide turned, however, in 1860, and politics, which had so retarded the work, now helped to push the road forward. The charter of 1862 was rushed through Congress, and it seemed as if the road was about to be

built. China and Japan were forgotten in the excitement, the ruling thought in the public mind being the necessity of strengthening the Union by bringing the West into quick and easy communication with the East, at any cost.

The Pacific coast and the new States of California and Oregon were in constant danger. It required twenty-four days of travel, partly through a foreign country, to reach the far West. The coast was almost entirely undefended, and recent events had shown to the Government the possibility of war with England. Semmes, the Confederate admiral, had added to the confusion by the destruction of nearly one hundred whaling vessels in the Pacific Ocean. The citizens in the far West were greatly excited and were constantly urging Congress to action. President Lincoln was labouring day and night with capitalists and Congressmen in the interest of the road that he considered of such vast importance to the Union. Friends of the enterprise furnished figures to show that the Government was paying seven million dollars annually for the transportation of mails, troops, munitions, and supplies between the Missouri River and the Pacific Ocean.

General Sherman, in the letter to his brother already referred to, had roughly estimated the cost of the road at two hundred million dollars, but experts now declared that it could be constructed for half that amount. So that simply to do its own work the Government, had there been no constitutional hindrance, could well afford to issue its six per cents for the amount, build the road, and save one million dollars

annually on its own transportation. There was no dearth of excuses for the construction of the road, for when the enthusiast failed there was always the Orient to fall back upon.

The charter of 1862 was believed by Congress to contain sufficient inducements in this land grant and subsidy loan to enlist the capital required to begin the enterprise. But no man of business had any idea that the full amount would be subscribed or paid in; there were not many who believed that the scheme was practicable.

To the surprise of Congress, capital held aloof from so unpromising a venture. Naturally the President, and others interested, looked to the lines of railroad then being extended across Iowa, but still a long distance from the Missouri River, to take hold of the Union Pacific charter and under it extend the line across the plains.

The franchise was vastly more valuable to either the Rock Island or the Northwestern than to any one else. Both could extend the road with the advantage of a railroad behind them, whereas a new company would have to carry all material and supplies from St. Louis to Omaha by water. Both these roads, however, after carefully considering the whole subject, declared that they saw no money in a railroad across the desert.

In 1864, about a year after his first conference with President Lincoln, General Dodge, either at the request or by command of the commander in chief, General Grant, visited Washington again. Upon this occasion he found it extremely difficult to hold the President to the subject of the Pacific Railroad. When

they had fought Virginia and Georgia over again, and discussed the fall of Atlanta,, the general tried to lead his host back to the prairies of the West, but it was impossible to hold him.

"While the President referred to the Pacific Road, its progress, and the result of my former visit," writes General Dodge, "he gave it very little thought, apparently. His great desire seemed to be to get encouragement respecting the situation around Richmond, which just then was very dark. People were criticising Grant's strategy, and telling how to take Richmond. I think the advice and pressure on President Lincoln were almost too much for him, for during my entire visit, which lasted several hours, he confined himself, after reading a chapter out of a humorous book (I believe called the Gospel of Peace), to Grant and the situation at Richmond."

Shortly after this General Dodge was assigned to another department and transferred from the South to the West. This pleased him, for his heart was there. In all the years, through all the excitement and anxiety at the front, he could not forget the plains and the railroad that he had often constructed in his mind and on paper.

In the winter of 1864-'65 the Indians were at war, and held all the overland routes. General Grant asked General Dodge if a campaign against them could be made in the winter. He answered, Yes, and the country from the Missouri to California was placed under his command, perhaps at the suggestion of General Sherman, for they were both enthusiastic friends of the railroad; and did more to push it through, perhaps, than

any other two men in the country, surely in the army. At all events, Dodge was back in the desert in charge of the Indian campaigns of 1865-'66. He was now in a position to explore anew all the vast region over which he had toiled in the '50's, and to look into the resources of the country. He seems to have been one of the first men to comprehend the possibilities of the country, and to predict a future for the road and the West.*

In these two years he travelled every mile of mountains and plains north and south, east and west, between the Arkansas and the Yellowstone, and from the Missouri River to the Salt Lake Basin. In all the movements of the troops and scouting parties he had careful reports of the country made—its resources and topography. As often as the depredations of the Indians made a move necessary he made a new map of that part of his empire. When the fight was finished he would begin to look the place over. "He was forever prowling, like a man who has lost something," said one of his subordinates.

It was on one of these exploring trips that he stumbled upon the pass over the Black Hills and won the title of "genius." The troops were returning from the Powder River campaign, and the general, as was his wont, was examining all the approaches and passes from Fort Fetterman, south, over the secondary range of mountains known as the Black Hills. These moun-

* "Its future is fraught with great good. It will develop a waste; will bind together the two extremes of the nation as one; will stimulate intercourse and trade, and bring harmony, prosperity, and wealth to the two coasts."—CHIEF-ENGINEER DODGE to the Directors.

tains had given the exploring engineers more trouble than all the other ranges in the Rockies, on account of their short slopes and great height. When the army had reached the trail on Lodge Pole Creek, the general took half a dozen mounted men and a scout and went up the stream to the summit of Cheyenne Pass. Turning south along the crest of the mountains, they kept on far above, but nearly abreast of the troops and trains that were dragging lazily along the base of the hills on the old St. Vrain and Laramie trail.

While crossing the little valley of a tributary of Crow Creek they came upon a band of hostile Indians. The Indians saw the white men at the same time, and, being in a majority, set out at a good jog to get between them and the troops. Of course they had been watching the train all day, but had had no idea that the commanding officer with only half a dozen men would be rash enough to come up into the hills and throw himself into their arms. General Dodge was well aware that it would be much easier to "stand them off" in sight of his soldiers than "cached" away there in the hills. So, hastily instructing his men, he set out to gain the top of a high ridge that seemed to him to point down to the part of the trail over which the troops must be passing about that time. After gaining the coveted ridge, however, he saw to his dismay that the troops were yet a long way off. It had been just about noon when they had found the Indians, and the general calculated that if he and his men were not detained by the band, and if there were no breaks in the ridge, they could get down to the trail before night. In a little while the ground over which

they were making their way became so steep and rough that they were obliged to dismount and lead their horses.

They tried in every way to signal the troops, but in vain. The Indians were riding hard to head them off, the ground grew rougher at every step, the sun was sinking in the west, and the hearts and hopes of the little band of explorers were not half as high as the foothills.

Finally they eluded the savages and got between them and the train, but the enemy gave chase. They were within rifle shot, but still the general and his little company hurried on down the long ridge. The Indians threatened to charge, but the general refused to stop and give battle, the result of which would surely be the loss of eight white men. The Indians, through some oversight on the part of the Government, were not so well armed as the soldiers, so, when the latter faced about, levelling their many-voiced Winchesters, the braves naturally hesitated. They had heard the bark of these death hounds before, and knew that many of their number would be made to bite the dust before they could subdue the blue-coated Pathfinders. As often as a moment's time could be stolen by one of Dodge's men, a signal fire was kindled, but it was not until the sun had gone down behind the hills that the signals of distress were seen and the troopers came to the rescue.

In going back to the train the general and his companions kept along the ridge that had saved them, and, to the commander's delight, it led them down to the plain without a break.

"Well," he said to his guide, "we have not only saved our scalps, but we have found the crossing of the Black Hills," and he named it Sherman Pass. Along that ridge the line was located, between the Lone Tree and the Crow Creek; and there run the overland trains to-day, carrying the fast mail between Chicago and San Francisco.

CHAPTER III.

THE BUILDING OF THE ROAD.

WHEN we read now of the vast sums that were made out of the building of the Pacific roads, we wonder that men of means were so slow to see the possibilities of the enterprise. The very franchise went begging for years. The capitalists of the country utterly lacked confidence. There was no dearth of men to agitate the question and to keep the matter before Congress and the country, but there was no money offered for the building of two thousand miles of railroad that would have to be guarded to keep the Indians from tearing up the track and making bonfires of the flag stations along the line.

Scores of men—some prompted by purely patriotic motives, and others by a desire to do big things and make money—had wasted their own time and fortunes and finally fretted their lives away in a vain effort to secure the necessary capital to begin the construction of the road. All that was ever accomplished under the charter of 1862 was merely the effect of an organization.

In 1864, Congress, having been convinced that nothing could be done without more help from the Government, amended the original charter, doubled the land grant, and enlarged the inducements to capitalists;

but the Government, with all its prestige and influence, was unable, even with the liberal land grant and a subsidiary loan of from sixteen thousand dollars to forty-eight thousand dollars for each mile of road, to bring out the money for the great project.

After months of hard work enough money was collected to buy a flag and a few firecrackers, and then, with the blare of trumpets and the roll of drums, ground was broken at Omaha. Flags fluttered over the flapping tents and mud huts of the two squat settlements that are cities now at either end of the big bridge that spans the Missouri. There the people of the two towns, drunk with excitement, saw the rails creeping out toward the Occident; but the money owners of the world saw only the smoke arising from the huts and tents, and beyond that—"the desert."

The President was perplexed. To the worry of the war was added the anxiety caused by the coldness of the capitalists. From the far West came the cry of an isolated people. The dread of the Oregonians, in the event of a general disintegration, of being gobbled up by the British, and the fear of the Californians of the invaders from Texas caused the Administration much anxiety.

The Government now agreed that the Union Pacific Company should borrow money from private people, giving a first mortgage on the road and land—the Government's claim becoming a secondary lien—and still capital refused to come forward. One great drawback was the limitation of the charter. Durant and Bushnell, who had been instrumental in securing it and effecting an organization, had tried hard to raise



At the head of the rails.

the money required to make a beginning, and failed, resourceful though they were.

At this moment some one hit upon the happy device of a construction company. In the language of the late Sidney Dillon, "this is not the place to treat of the operations of the *Crédit Mobilier*," but that is what the construction company was called. What we have to do with now is the ultimate result. The end was good, whatever may be said of the means.

The first money received from the *Crédit Mobilier* enabled the company to commence constructive work. A little grading was done in the autumn of 1864, but owing to changes insisted upon by the Government inspectors, work was not begun in earnest until the spring of the following year.

Everything was done at enormous cost. No railroad reached the Missouri at Omaha at that time. All materials, machinery, locomotives, men, and cars had to be brought up by boat from St. Louis. The wages demanded by the men (often in advance of the day's work) were vastly in excess of those paid for similar service where it was not necessary to flag with fire-arms. Men would not go out upon the wild prairies and tamp ties merely for the excitement. There was no coal or wood, or fuel of any sort, save the chips that passed for fuel on the plains. The men making the road found no ties on the treeless desert. For mile after mile they found no stone for rockwork. In short, they found absolutely nothing; only the right of way and the west wind sighing over the dry, wide waste of a waveless sea. The cost of transporting a locomotive—the labour and freight—was enormously high. If one

were to lay a line of one dollar bills along the tow-path, end to end, it would not cover the cost of the first ties put under the track. Like the locomotives, rails, and cars, they had to be shipped by boat, and for a long distance cost the company two dollars and a half apiece.

Those who have criticised the construction company have always argued that material and supplies were made dear by it to increase the profits upon the job—that the money paid out by the directors of the Union Pacific Company was received by the same men as directors of the *Crédit Mobilier*, or construction company. But it will be readily seen that, situated as they were, the cost of building the road was necessarily very great.

The first of these costly rails was laid in July, 1865. By the end of that year forty miles of road had been put down, which, being accepted by the Government, brought the company six hundred and forty thousand dollars in Government bonds—being sixteen thousand dollars a mile—as a subsidy loan. The land grant was not available to meet current expenses. Up to that time there had been no demand for the land-grant bonds and first mortgages. These could only be used as collateral for loans negotiated by the construction company.

The men building the road soon became aware that the Government, which had helped so much, was going to hinder as well, because of its ponderous machinery and an enormous amount of what is generally called red tape. Every mile of road that received a subsidy had to be approved by the Government three different

times through its selected officers and alleged experts before a dollar could be paid or an acre of land certified.

First, the preliminary survey, showing the general route of the line, had to be passed upon and accepted, in compliance with the law, and to the satisfaction of the President. Again, as each section of fifty or one hundred miles was finally located, the trail staked out upon which the road was actually to be built, and from which there could be no deviation, it had to be filed with the Secretary of the Interior, and to receive his approval and the Government's great seal. With this important paper in his pocket the chief engineer could begin work.

Finally, when a section of forty or more miles had been built and equipped as required by law, the United States Government would send out three expert commissioners, whose business it was to examine again the line, the work, the material, the method of construction, and then pass upon the whole.

Not infrequently this last lot of experts would disagree with the others and disapprove of what had already been approved. Once or twice they ordered it all done over again. The company or contractor had no authority to swerve to the right or to the left of a line once located; but an expert, who might be only a plain, ignorant politician, could condemn or approve, and there was no appeal. It might be that the Government expert saw the West for the first, last, and only time when on his official tour of inspection. He could know nothing of the dangers to be encountered from snowdrifts or washouts, and the result was that

after the road had been built a great deal of it had to be changed in order to overcome these serious obstacles. Other experts, who sat in Washington and fixed a standard for grades, roadbed, cuts, fills, bridges, ties, rails, spikes, and joints, had never seen, mayhap, the dark river that washed the edge of the West.

For three long winters engineers living in tents and dugouts watched every summit, slope, and valley along the entire fifteen hundred miles of road, to learn from the currents where the snow would drift deep and where the ground would be blown bare. In summer they watched the washouts that came when the hills were deluged by what, in the West, they call cloudbursts. These were the only experts competent to say whether a draw should be bridged or filled, and only after years of residence in the hills.

And who was better fitted to say where the line should lie than the engineer in charge of the work? He had measured it all through months of weary toil; he knew almost every mountain and vale in the Rockies, swell and swale of the plains, and yet a political expert had power to run a blue pencil through his work. It was not long, however, before the experts saw that the engineers knew their business, and that the President and Board of Directors were as anxious to have a good road as was the Government, and so made but few changes.

Upon a line located with great care, patience, and skill, a cheap road may be put down and afterward brought to a high standard of excellence. This, in fact, is the usual method in America. Our roads have always been in a great hurry to get somewhere, just as our ex-

press trains are. On the other hand, one can never build a good road upon a badly located line, and for this well-known reason a great deal more depends upon the locating engineer than is generally supposed by the average reader. Think of what the discovery of Sherman Pass meant to the Union Pacific Company in thirty years, even if we take only the passenger trains into consideration. It meant one locomotive for each train, instead of two. A locomotive such as would be required as a helper on a hill costs about ten thousand dollars, and it costs half that amount annually to operate it. Four passenger trains a day each way would take four engines, forty thousand dollars, first cost, and twenty thousand dollars a year for the thirty years that the road has been running, or a total of six hundred and forty thousand dollars.

It is very much to the credit of the men who had the building of the Union Pacific in hand that they insisted at all times upon making a good road. There is plenty of evidence that this was the policy of both President Ames of the railroad company, and President Dillon of the construction company. When some of those interested wanted to make a quick, cheap surface road, taking advantage of the maximum grade authorized by law, the board invariably stood by the lines of the engineers, as offering the greatest commercial value.*

* "The instructions given me by Oliver Ames and Sidney Dillon, one at the head of the railroad company, and the other at the head of the construction company, were invariably to obtain the best line the country afforded, regardless of expense. Oakes Ames once wrote me, when it seemed almost impossible

From the first to the last mile the Union Pacific was a well-laid and a splendidly constructed road, and that is one of the reasons why it has prospered, in spite of its political encumbrances, and of the equally embarrassing fact that men were sometimes sent out from the East to help in running the road who did not know a semaphore from a switchback.*

to raise money to meet our expenditures: 'Go ahead; the work shall not stop, even if it takes the shovel shop.'"—DODGE, *Chief Engineer*.

* A prominent Union Pacific official, in yellow gloves and blue glasses, once asked a brakeman why the coach in which he was riding was uncomfortably cold. The brakeman replied that the heater was in the rear instead of the front end of the car. That afternoon a sharp letter went to the superintendent of motive power and machinery, ordering the cold coach in the shops, in order that the heating apparatus might be taken out and put in the front end. The mechanical superintendent wrote, explaining that there was no front or rear end to a day coach; that all depended upon the direction in which the car was moving; that the heater had been all right going out that morning, but that this was a branch line, with no table or "Y" at the other end; but there is no evidence that the new official ever understood the letter.

Another importation was being shown over the road by the late "Tom" Potter, then general manager. Out on the plains there were a great many "Y's." At one point they backed in on a spur to allow a long train to pass. "I say," said the tenderfoot, looking about, "there's only one leg to this 'Y'."

"Oh, damn it!" said Potter, "this is no 'Y'; this is a spur, and you must not talk that way before the trainmen, or they'll insist upon tying you under the bridge till you get used to the cars."

This same official once wrote a letter, it is said, to the road master, reproving him for his wanton waste of steel. He had watched a yard engine for an hour going up and down the

With competent, enthusiastic, determined men at the front, and equally energetic officials behind the enterprise, the fact that a first-class road was the result is no great surprise. The wonder is that it was done so rapidly, and yet so well.

The little money that came to the construction company in Government bonds upon the completion of the first forty miles of track helped it out considerably, but did not wholly relieve the pecuniary embarrassment which seems constantly to have beset it until the desert had been railed.

In 1866 the company put down two hundred and sixty more miles of track, but was still struggling for money. In the following year it laid two hundred and forty miles, reaching the summit of the Rocky Mountains, making five hundred and forty miles of rails west of the Missouri River. The cost of building over the mountains was so much less than had been expected that the construction company found itself with a surplus for the first time in its existence.

Without waiting to see what the harvest was to be beyond the range, the company foolishly distributed the surplus in dividends. Now, the fact that the builders had reached the dividend point caused a vast amount of criticism without and strife within, so that

yards, and there were rails with bent ends, spiked down among the switches, that were never touched by the wheels of the passing engine. He ordered these rails taken up, straightened out, and used in building side tracks.

The road master did not answer the letter. He called personally and explained to the thoughtful official that the rails referred to were guard rails, put there for the protection of the lives of employees and the property of the company.

the company was not as happy as it had been in the days of its poverty. Even after it had reached and passed the dividend point it seems still to have been hard pushed at times for money, and if it had not been for the men of means behind the enterprise, fearless and willing to risk their own fortunes and reputations in the work, the road could not have been built when it was.*

By the time the road reached the Rocky Mountains the work, so big and bold, had attracted the attention of the nation. All the leading newspapers of the country sent special correspondents, and at the end of the day's work the result in miles of track laid went out over the wires to an appreciative public.

Men who had made reputations as war correspondents at the South sharpened their pencils and went West, for here, too, was war. It took a vast army of men to complete the road in five years, and it took another army to protect the workers and supply them with food.

Being fresh from the army himself, General Dodge, the chief engineer, was able to secure valuable aid from the Government troops, without which it would have been almost impossible to make the road.

"Even the commissary was open to us," says General Dodge. "Their troops guarded us, we reconnoitred, surveyed, located, and built inside their picket line. We marched to work to the tap of the drum, with

* "Nothing but the faith and pluck of the Amesese, fortified with their extensive credit, and the active financial aid of men like John I. Blair and other capitalists, carried the thing through."
—SIDNEY DILLON, in *Scribner's Magazine*.

our men armed. They stacked their arms on the dump, and were ready at a minute's notice to fall in and fight for their territory."

The majority of the men employed in the building of the Union Pacific had been soldiers at the South. They were accustomed to camp life, and were readily lined up, day or night, when the awful cry, "The Sioux! the Sioux!" was heard. Nearly all the officials had a well-earned military title. After the chief engineer came General "Jack" Casement, in charge of the track train, who with his brother "Dan" is said to have been able to form and arm a regiment of a thousand men at a word, and from general to captain it could be commanded by experienced officers.

One day, when the end of the track was two hundred miles out on the plains, General Dodge was coming down from the front in his private car, which he always referred to as his "travelling arsenal," and was flagged at a place called Plumb Creek. The operator, breathing heavily, told him that a band of bad Indians had held up a freight train with supplies for the front, a little way down the road, and that the train crew, in a fortified car, was making a last stand.

In another car upon the special there were about twenty men, some taking a "lay-off"; a few had been discharged and were going to the rear. The men were nearly all strangers to the chief engineer, though all, of course, knew him. The general, upon receiving the news, made it known to the men that a train crew was in immediate danger, and the men came close, eager for details.

Of course there was no lack of arms and ammuni-

tion, and while the general warmed them up for the work ahead, the operator brought message after message from the station near the hold-up, following the fight. The excitement grew, the men pressed closely about the general. The operator, bareheaded and pale, brought out the last message verbally. "The train's on fire!" he cried.

Turning to the little band of men—many of whom a moment ago had been cursing the chief engineer, the construction company, the railroad company, or any other company that interfered with a man's thirst—the general requested those willing to go forward and rescue the men on the burning train to form in line. Without a moment's hesitation—without so much as a glance at each other—every man within the sound of his voice fell in. "All aboard!" cried the general, and away they went. Never had such running been seen on that new track. Away down the plains the smoke of the burning train was plainly visible, and the driver of the locomotive drove for all there was in the machine. He knew that his brothers of the rail were in deadly danger there, and he pulled the throttle wide, regardless of results. In a little while the train began to slow down, and finally stopped not far from the fire. The Sioux, bent on blood and plunder, did not notice its coming until the men were out and in line of battle. Now the general ordered them forward. "At the command," he said afterward, "they went forward as steadily and in as good order as we had seen the old soldiers climb the face of Kenesaw under fire."

After a brisk battle, in which the crew of the burning train fought desperately, the Indians were driven

from the field, carrying their wounded away with them.

Depredations of this sort soon convinced General Sherman, the commander of the army, that the Sioux were not all dead, and that this railroad, in which he had shown a deep, patriotic interest for many years, could not be built without the aid of the Government troops, and plenty of them. But he had not always held this opinion. Ten years earlier, writing to his brother, then a member of Congress, he had said:

"No particular danger need be apprehended from Indians. They will no doubt pilfer and rob, and may occasionally attack and kill stragglers; but the grading of the road will require strong parties capable of defending themselves; and the supplies for the road and maintenance of the workmen will be carried in large trains of wagons, such as went last year to Salt Lake, none of which were molested by Indians. So large a number of workmen distributed along the line will introduce enough whisky to kill off all the Indians within three hundred miles of the road."

The stories of Indian fights along the Union Pacific alone would make a big book. Some of the men who passed through these wild times on the plains have never been able to shake off the memory of those dreadful days. There were days, weeks, months together, when no man could say with any degree of certainty that he would still wear his scalp on the morrow. The benighted native saw in the coming of the pale-face, with his horse of iron on a trail of steel, the end of all that was dear to the heart of the Indian. He saw in the wanton slaughter of the wild cattle of the plains the

destruction of his chief article of food and clothing. He saw in the change that had come over the dusky daughter of the desert some of the awful effects of civilization, and began to guard against it. Old traditions were being forgotten, old customs ignored. With knitted brow the red man marked the squaw in the annual round-up of the unfaithful. She showed no shame when pointed out by the man she had known, but shrugged her naked shoulders and allowed them to guess the rest.* These and other things made the Indian desperate, and he took awful vengeance on the white man.

Not many years ago the writer was sick in a railroad hospital in the West. Over against the other wall lay the travelling engineer of the road, with a broken leg. This man had been the driver of a construction engine laying tracks across the plains. He had seen things that would make many a man gray. I had known him some years, but had never heard him tell any of his experiences; but now, when the fever was high, his troubled mind would go back and he would live it all over again.

At first his wild talk was allowed to pass as the mad ravings of a fevered brain, but when he began to give

* "In times gone by the Sioux had a very peculiar ceremony. All the males who had arrived at the age of puberty were formed in two lines, about four feet apart, facing inward. All the females of and above the same age were required to pass in single file between the ranks. Any man in the ranks who had within the year been intimate with any woman was obliged by his honour and his religion to put his hand upon her as she passed."—RICHARD IRVING DODGE, *Plains of the Great West*.

graphic details of well-known incidents the writer questioned him, when the fever was off, and learned that these things were real. He had lived, seen, and suffered them, and he told many stories that have since gone into print on both sides of the Atlantic.*

He told, long into the night, when the great ward was as silent as the grave, how the camp hunters would ride away at dawn, and never come back. How the Sioux would hang upon the horizon for days, and then disappear, only to return in the dark of the moon, or when they were least expected. It was gruesome to hear him recite the story of the conductor who rode out after a herd of buffalo, and who was afterward found, half buried under the Chalk Bluffs, with an arrow driven down at the side of his neck until the poisoned point touched his heart. These were not dreams. They were awful realities, that would come back when the brain was troubled; and there are scores of others who have gone through it all, and who rave, no doubt, when the fever is on, as Lieutenant Murie, crazed in battle, raves in a madhouse.

* See the author's *Wakalona, A Locomotive as a War Chariot*, *The Express Messenger*; *The Engineer's Story, Paper-Talk*.

CHAPTER IV.

THE TOMBS OF THE TRAIL MAKERS.

ALL up and down the steel trails that cross the continent from East to West are the unmarked tombs of the trail makers. From Omaha to San Francisco, from Kansas City to Denver, from the Missouri River to the Mojave Desert and beyond, if you plough the right of way of these iron trails your share will grate constantly upon the bones of the pathfinder.

Many a man who left his home and friends in the East to seek his fortune in the far West went out with the workmen in the morning and was brought back to camp a corpse when the day was done. Perhaps the foreman had neglected to get his address, or had got his initials wrong, or, it may be, the man had given another name to avoid the disgrace of being advertised as a common labourer in the "list of the dead." In this way, and many others, men fell in the great fight and were lost.

Sometimes the camp hunters would see a band of buffalo feeding away out on the plains, and, taking advantage of the wind, would go after it. Now the Indians had been watching this herd, knowing that the hunters would ride after the game. They knew, too, that the white men would come up against the wind,

and so, standing by, far out of scent, they waited for the race. The moment the bison put down their heads and started, the Indians, taking a swale, swept down to flank them. On came the wild cattle, and riding among them were the hilarious hunters, striking death to the helpless beasts that were fleeing for life. The horses of the hunters had already made a mile or two, or three, and were beginning to show signs of fatigue. The horses of the Indians were fresh, and in a little while the red men were riding close to the hunters.

Hiding in the cloud of dust that the chase kicks up, the Indians work up to the rearmost rider, who reels, pitches forward, and falls upon the body of the great beast that he has killed a moment ago. The thunderous roar of hoofs, the sound of split feet cracking like a forest fire, the whistling breath and low bellowing of the buffalo, make a din in which it is easy to hide the bark of an extra rifle; and so the work of slaughter goes on. After the first man has fallen the Indians press on to the second. The hunter shifts his position, and the bullet aimed at him whistles past his ear. Surely, one would think, that will warn him. But no; he gallops on without even glancing back. He has often heard the cry of a bullet that has glanced from the horn of a bull. The next shot strikes home, and the second hunter goes down in the dust.

Well up in the herd a couple of young men are riding furiously. They are not "camp hunters." They are the sons of wealthy men in the East, and are here with the trail makers, spending their vacation. They are mounted upon the best horses that money can

buy, and the regular hunters have purposely allowed the visitors to take the lead. Hard ride the Indians, but their cayuses are beginning to fag. Already they are within rifle reach, but they want to be sure, for it is hard to hit a running man when you are also running.

If you look long and intently at the back of a man's head when he is at a theatre or at church he will look round. No matter how deeply he may be interested, he will turn for a moment and look you in the eye. So when the panting Sioux have galloped behind one of the young men for some time the young man glances over his shoulder. Urging his horse to the side of his companion, he shouts, "Indians!" shows his white face, and his friend understands.

"The hunters?" he asks.

"Gone," says the man who has glanced back, and as he reins his horse for camp his companion follows. There is no show for the white men but to ride for life, and they urge their horses to the top of their speed. On come the Indians, firing at the fugitives. Slowly the space between the pursued and the pursuers widens, until the bullets fall short and peck the dust behind the heels of the splendid horses. The Indians are the first to note this, and have reined in their cayuses long before the two "tenderfeet" drive their spent steeds into camp.

The scouts ride out, and when they come to the first dead hunter an officer dismounts. A glance at the hunter's head shows the trade-mark of the Sioux. The captain swears, and swings himself into the saddle again. Bringing his glasses up, he sweeps the sea of

sagebrush and sand hills, but there are no Sioux in sight.

After scouting around for a few hours the soldiers return, pick up the dead, and ride back to camp.

The next day the hunters are "cached," a week later the "end of the track" is moved, and in a month the coyotes are romping over the forgotten graves.

Below a little mound near Monument, in western Kansas, thirty-six trail makers have been sleeping in one great grave for a score and a half of years. They were workmen engaged in grading and building the Kansas Pacific Railroad.

As familiarity breeds contempt, so had the constant sight of Indians made the men here employed careless of the dangers that constantly surrounded them. The scouts had seen no Indians for days, and so had relaxed their vigilance. The construction train would run to the front, fling off a few carfuls of material, whistle, and back away for another load. No doubt the walking boss felt nervous when left alone with the unarmed labourers, with a stretch of a mile or more of billowed plain between him and the camp; but as the hours wore away he forgot his helpless plight.

The wide plain lies sleeping in the summer's sun. The silence of the desert is broken only by the chuck, chuck of shovels and the low murmur of the wind. Far to the south the camp hunters are chasing a band of buffalo. Now and then the black herd lifts above a swell, and then, dropping into a sag, is lost to view. Along the horizon in the wake of the flying band a gray cloud of dust hangs, hiding, like a veil of charity,

the agonies of the hurt beasts. As the dust cloud blows away a wounded bull stumbles to its feet, and, standing wide-legged, like a drunken man, tries to get its bearings. Blood is gushing from its nostrils and from its ears. Its throat is on fire, but the desert is dry. It shakes its head violently, and wheels about ready to charge the foe, but the desert is empty. Turning again, it gazes down the hoof-torn trail and watches the melting herd, curving slowly to the east, as a great ship turns in an open sea. The hunters are holding it close to camp. The wounded bull seems to see the danger of this and tries to follow, but its legs refuse to obey, its knees tremble, its chin comes to the dust. Kneeling so, it sees a red pool forming where its nose touches, and a moment later sinks slowly to the earth.

Meanwhile the walking boss watches the far-off herd, rising and falling. From swell to swale, from swale to swell, they come and go, until the ammunition and the horses are exhausted. Pulling rein, the hunters ride slowly back to the end of the track. They have not the faintest idea of how many beeves have been killed—a half dozen or a half hundred; the skinners will tell. Slowly from the camp a string of wagons is lining out to pick up the meat.

Now the work train comes down with another load of material, unloads it and backs away again, leaving a barrel of fresh water for the thirsty labourers. Out in the sagebrush a gray wolf is limping away in the direction of the great slaughter fields, where friendly squaws and squaw men are already hulking the dead. If the wolf had known, it might have saved itself the

long walk, for hereabout are other butchers, ready for their work.

Silently, cautiously, from every little sand hill, from behind low bunches of sage—from the very earth—peeps a feathered head. What a golden opportunity! The unarmed workmen have even cast their picks and shovels aside, and are standing in the semicircle about the barrel, drinking or waiting for a chance to drink.

Noiselessly now, but as one man, the savages stand up, and at a sign from their chief rush upon the defenceless workmen. They even omit the fiendish yell that usually goes with a massacre of this sort, and are actually upon the labourers before the latter have time even to cry for help. With barely time to curve their arms above their defenceless heads, the unfortunate workmen are beaten to earth and scalped, and when the work train comes up with another load the labourers have gone the way of the buffalo.

Having done their bloody work, the Indians hasten to their horses, left in a swale close by, and by the time the scouts have been notified and are ready to follow they are far away.

CHAPTER V.

THE MEETING OF THE RAILS.

WHILE the Union Pacific was building west from the Missouri River, the Central Pacific was building east from the Golden Gate. The law that authorized the building of the Pacific roads directed the companies to join their rails wherever they met between the river and the coast. Very probably the Union Pacific at one time would have welcomed the straight stack on the Central's construction engine at the western limits of Nebraska. It is equally probable that the California company would have been content to end its track at the dump of the Comstock, but by the time the Union Pacific had reached the crest of the Rockies, and the Central had dropped a few rail lengths across the summit of the Sierras, things began to brighten up. They were learning the art of road making. To use a common, homely, but expressive railroad phrase, "they were getting on to their job." The chief engineer, in his last and final report to the Board of Directors, wrote: "Each day taught us lessons by which we profited for the next, and advances and improvements in the art of railway construction were marked by the progress of the work."

In making the surveys and building the road many

of the most skilful and promising men engaged in the work were killed. Hundreds, if not thousands, of horses and mules were stampeded or stolen by the Indians, but there was no cessation in the work; and now, as the two companies rushed the grade, one down the western slope of the Rockies, the other down the eastern slope of the Sierras, a great race began. The Union people were anxious to build as far west as possible, while the Central would go as far east of Salt Lake as the rails could be pushed, for there was a profit in the road in the Salt Lake Basin, and both companies were anxious to win the subsidy.

The subsidy differed as the roads encountered natural obstacles. In the open country between the Missouri River and the foothills of the Rocky Mountains it was at the rate of sixteen thousand dollars per mile. In crossing the Rocky Mountains and the Sierras on the California side it increased to forty-eight thousand dollars per mile. Between the Rocky Mountains and the Sierras, where the country, although not as difficult as the plains, offered many disadvantages, the subsidy was authorized at thirty-two thousand dollars per mile.

It will readily be seen that the matter of fixing the base of a mountain was of great importance to the construction company. It was left with Mr. Blickensderfer, who was appointed by the Government, to say where the plains left off and the Rocky Mountains began, and his decision seems to have been satisfactory to all concerned, though there is no evidence that he had been "fixed" by the *Crédit Mobilier*. This is probably an oversight on the part of those who have

been busy for the past quarter of a century looking for spots on the corporation that built the Union Pacific.

The base of the Sierras had been located near Sacramento, where the drift of the mountains reached the plain. This, as a matter of fact, was long before the heavy mountain grade was encountered, and there was not a little protesting. The original railroad act made it the duty of the President to fix the base of the several mountain ranges, and here, in determining finally where the valley should stop and the mountain begin, Congressman (afterward Senator) Sargent, of California, claims to have imposed upon the most thoroughly honest President the United States ever had by laying before him a map that had been drawn to fit the case.

Chief-Engineer Judah, following the smoke of the Supreme Court, fixed the foothills at Barmore's. In determining the limits of an old Mexican land grant "bounded on the east by the foothills," the court had made its mark at Barmore's, thirty-one miles from Sacramento. The contestant of the grant wanted the foothills to begin far up in the range, while the railroad company wanted them to run as far as might be down into the valley, and that is why Mr. Judah followed the court, which was supposed to be correct. At any rate, the decision suited him and the interests he represented. It was to prevent the company from profiting by this decision that the Hon. Mr. Sargent sought Mr. Lincoln, but Mr. Lincoln was busy in the early '60's. Finally, however, the day came when the thing had to be settled, and the President and the senator settled it by

simply removing the mountains from Barmore's to Arcade, a distance of twenty-four miles.*

Besides competing for the fixing of the final meeting point, the two companies building this the first transcontinental line competed for the good will and influence of the Mormon Church, a central power that would be of great benefit to the roads. Reconnaissances made by the Union Pacific between 1862 and the end of 1864 had convinced it that the road, dropping down from the Wasatch Mountains to the Humboldt Valley, must go north of the Great Salt Lake.

But that was not what these modern children of Zion wanted. Brigham Young called a conference of all his followers, which at that time meant practically all the people of Utah, and refused to accept the decision. He prohibited his people from contracting or working for the Union Pacific, bringing all the influence of the Church to bear in favour of the Central Pacific line. The Union Pacific soon saw that here was a difficult business to handle. Salt Lake City was the only commercial capital between the Missouri River and Sacramento. It was the key to the commerce of the great basin controlled by this sagacious Latter-Day prophet and his followers.

The Central Pacific Company began the location,

* Mr. Sargent gave the following account of the affair to his friends: Mr. Lincoln was engaged with a map when the senator substituted another, and demonstrated by it and the statement of some geologists that the black soil of the valley and the red soil of the hills united at Arcade. The President relied on the statement given him, and decided accordingly. "Here," said the senator, "you see how my pertinacity and Abraham's faith removed mountains."

or rather the examination, of its line by the lake long after the line of the Union Pacific had been filed with the Secretary of the Interior, and now the latter company waited nervously for the decision of the Central Company's engineers. When the report was finally made it was stronger, if possible, in favour of the northern route than the report of the Union Pacific engineers had been. This caused the Church to face around again, and back it flew to the arms of its first love.

Now the dirt began to fly. The graders were far in advance of the track layers, and as the Central selected almost the same route followed by the Union Pacific west of Ogden, the advance forces soon met and passed each other. Instead of stopping when the graders met, both companies kept right on, and here lay parallel across the sage-covered desert two lines of railroad without a rail. This foolish business was pushed until, by the time the track layers met—when by law a junction had to be made—the two roads overlapped each other for a distance of nearly two hundred miles. The rails finally met at Promontory, Utah, eleven hundred and eighty-six miles west of the river, six hundred and thirty-eight miles east of Sacramento. The entire line was completed seven years before the limit of time allowed by Congress.

The driving of the last spike in the Pacific Road is one of the few really great events—events that stand out like a white milepost on a burnt prairie—in the history of this great country.*

* It is not too much to say that the opening of the Pacific Road, viewed simply in its relation to the spread of population,

Between the 1st of January, 1868, and the 10th of May, 1869, the Union Pacific had put down five hundred and fifty-five miles of main-line track. The world had never seen railroad building on so grand a scale. A moving city of one, two, and even three-story houses moved with the advancing track layers, and the wire ticked off the result each day at the set of sun. The people were becoming interested in the great work, but even while the last rail was being put in place those most interested in the future of the road—those who had risked their reputations, fortunes, and even their lives in the work—were still looking toward the Orient for traffic and for the final success of the scheme. But with all their blindness, the people all over the country began to grow enthusiastic as the twin threads of steel were about to be joined away out there in the Utah desert, bridging the continent. Nearer and nearer came the engine from the East to the engine of the West. Idle workmen, crowded out by the closing of the gap, leaned upon their shovels; the tired trail makers sat down to gaze in silence upon the closing scene in the great drama which they had followed for five long years.

The toilsome task of the pathfinders was finished. They were not all there at the end. Some had fallen away back on the plains, others west of the Sierras,

development of resources, and actual advance of civilization, was an event to be ranked in far-reaching results with the landing of the Pilgrims, or perhaps the voyage of Columbus. In less than twenty-five years it has accomplished results which have influenced the whole world more than what happened in the century following the landing of the Pilgrims."—SIDNEY DILLON.

and those present peered into each other's faces, as if still doubting that the thing was done.*

Looking back over the steel trail, they knew that, long as it was, there were not mileposts enough along the line to mark the graves of the pathfinders and other pioneers who had fallen in the great fight for this new empire of the people. More than one man here had grown gray in the five years that he had stood in the snow and sun of the mountains and plains. The deep furrows upon their faces were battle scars.

Not many people were present at Promontory that day. The demonstration when ground was broken at Omaha, five years earlier, had been much more imposing, but the people of the whole country were to take part in the celebration.†

* Among the men who made the Union Pacific were General Granville M. Dodge, and Messrs. Dey, Reed, Hurd, Blickensderfer, Marris, McCartney, Eddy, House, Hudnut, Maxwell, Brown, Appleton, Clark, Hoxie, Snyder, and the Casements.

On the Central were Messrs. Judah, Strawbridge, Montague, Clements, Ives, Gray, Towne, and others. Many of the men who took part here met as often as five times in making connections that completed the several transcontinental lines: at the joining of the Texas with the Southern Pacific, at Sierra Blanca, in coupling the Santa Fé to the Atlantic and Pacific, in driving the last spike in the Canadian Pacific at Craigellachie, and in connecting New Orleans and the Gulf of Mexico with Denver, in 1888.

† "In New York, Trinity Church was thrown open at midday, an address was delivered by Rev. Dr. Vinton, and a large crowd united 'to tender thanks to God for the completion of the greatest work ever undertaken by man.' In Philadelphia bells were rung and cannon fired. At Chicago a great impromptu demonstration took place, in which all citizens joined. At Buffalo a large crowd

Arrangements for this purpose were made at very short notice. Through the hearty co-operation of the telegraph companies, all their principal offices were connected with Promontory, in order that the blow of the hammer driving the last spike might be communicated by the click of the instrument at the same moment to every station reached by the wires.

A small excursion party, headed by Governor Stanford, of California, came up from the coast; but from the East, aside from the army of road makers, contractors, and engineers, there were only two or three people, among them the Rev. Dr. Todd, of Pittsfield.

As the pilots of the two construction engines came close together the five or six hundred people present sent up cheer after cheer. There were cheers for everybody—from the President of the United States to the Chinaman by whose artistic touch the grade was leveled for the last tie. Brief remarks were now made by Governor Stanford for the Central, and by General Dodge for the Union Pacific, and at twelve o'clock, noon, the two superintendents of construction, Mr. S. B. Reed and Mr. S. W. Strawbridge, brought forward the last tie. It was of California laurel, highly polished, bearing a silver plate, upon which was inscribed:

gathered to hear the telegraph signals, sang the Star-Spangled Banner, and listened to speeches from distinguished citizens; and at every important point the announcement of the completion of the work was received with unbounded joy."—SIDNEY HILLON, in *Scribner's Magazine*.

"THE LAST TIE

LAID IN THE COMPLETION OF THE PACIFIC RAILROADS,

MAY 10, 1869."

The names of the officers and directors of both companies were also engraved on the plate.*

* The original incorporators of the Union Pacific Railroad Company were as follows:

Walter S. Burgess, William P. Blodgett, Benjamin H. Cheever, Charles Fosdick Fletcher, all of Rhode Island.

Augustus Brewster, Henry P. Haven, Cornelius S. Bushnell, Henry Hammond, of Connecticut.

Isaac Sherman, Dean Richmond, Royal Phelps, William H. Ferry, Henry A. Paddock, Lewis J. Stancliff, Charles A. Secor, Samuel R. Campbell, Alfred E. Tilton, John Anderson, Azariah Boody, John L. Kennedy, H. Carver, Joseph Field, Benjamin F. Camp, Orville W. Childs, Alexander J. Bergen, Ben Holliday, D. N. Barney, S. DeWitt Bloodgood, William H. Grant, Thomas W. Olcott, Samuel B. Ruggles, James B. Wilson, of New York.

Ephraim Marsh, Charles M. Harker, of New Jersey.

John Edgar Thompson, Benjamin Haywood, Joseph H. Scranton, Joseph Harrison, George W. Cass, John H. Bryant, Daniel J. Morell, Thomas M. Howe, William F. Johnson, Robert Finney, John A. Green, E. R. Myre, Charles F. Wells, Jr., of Pennsylvania.

Noah L. Wilson, Amasa Stone, William H. Clement, S. S. L'Hommedieu, John Brough, William Dennison, Jacob Blickensderfer, of Ohio.

William M. McPherson, R. W. Wells, Willard P. Hall, Armstrong Heatty, John Corby, of Missouri.

S. J. Henaley, Peter Donahue, O. P. Huntington, T. D. Judah, James Bailey, James T. Ryan, Charles Hosmer, Charles Marsh, D. O. Mills, Samuel Bell, Louis Melane, George W. Mowe, Charles McLaughlin, Timothy Dame, John P. Robinson, of California.

In many parts of this and other countries men in the multitude heard with mingled joy and sor-

John Atchison and John D. Winters, of Nevada.

John D. Campbell, R. N. Rice, Charles A. Trowbridge, Ransom Gardiner, Charles W. Penney, Charles T. Gorham, William McConnell, of Michigan.

William F. Coolbaugh, Lucius H. Langworthy, Hugh T. Reid, Hoyt Sherman, Lyman Cook, Samuel R. Curtis, Lewis A. Thomas, Platt Smith, of Iowa.

William B. Ogden, Charles G. Hammond, Henry Farnum, Amos C. Babcock, W. Seldon Gale, Nehemiah Bushnell, Lorenzo Bull, of Illinois.

William H. Swift, Samuel T. Dana, John Bertram, Franklin S. Stevens, Edward R. Tinker, of Massachusetts.

Franklin Gorin, Laban J. Bradford, John T. Lewis, of Kentucky.

James Dunning, John M. Wood, Edwin Noyes, Joseph Eaton, of Maine.

Henry H. Baxter, George W. Collamer, Henry Keyes, Thomas H. Canfield, of Vermont.

William S. Ladd, A. M. Berry, Benjamin F. Harding, of Oregon.

William Bunn, Jr., John Catlin, Levi Sterling, John Thompson, Elihu L. Phillips, Walter D. McIndoe, T. B. Stoddard, E. H. Brodhead, A. H. Virgin, of Wisconsin.

Charles Paine, Thomas A. Morris, David C. Branham, Samuel Hanna, Joseph Votaw, Jesse L. Williams, Isaac C. Elston, of Indiana.

Thomas Swan, Chauncey Brooks, Edward Wilkins, of Maryland.

Francis R. M. Cornell, David Blakeley, A. D. Seward, Henry A. Swift, Dwight Woodbury, John McKusick, John R. Jones, of Minnesota.

Joseph A. Gilmore, Charles W. Woodman, of New Hampshire.

W. H. Grimes, J. C. Stone, Chester Thomas, John Kerr, Walter R. Davis, Luther C. Challiss, Josiah Miller, of Kansas City.

Gilbert C. Monell, Augustus Kountz, T. M. Marquette, William H. Taylor, Alvin Saunders, of Nebraska.

John Evans, of Colorado.

row the story that the wires were telling. A few men had made fortunes out of the building of the road, many had failed. Not a few came out of the enterprise poorer than they entered upon it. Some had come to deep grief and lasting disgrace. All had been abused, some vilified—"libelled," their friends affirm, "bankrupted, and driven to the grave"—but they had builded for posterity better than they knew.*

When everything was in readiness at the two ends of the track, the telegraph instruments ticked "Hats off," and the nation bared its head.

After prayer had been offered by the Rev. Dr. Todd, whom Providence seems to have sent out, the wire said, "We have got done praying." "We understand," was the answer; "all are ready in the East."

Now the four spikes, two of silver and two of gold, the products of Montana, Nevada, California, and Idaho, were produced, and passed to Governor Stanford, who stood on the north, and Dr. Durant, who stood on the south side of the track, and who put them in place. "All ready," went over the wire, and instantly the silver hammer came down, the stroke of the magnet touched the bell, and told to a waiting world the story of the completion of the Pacific Railroad.†

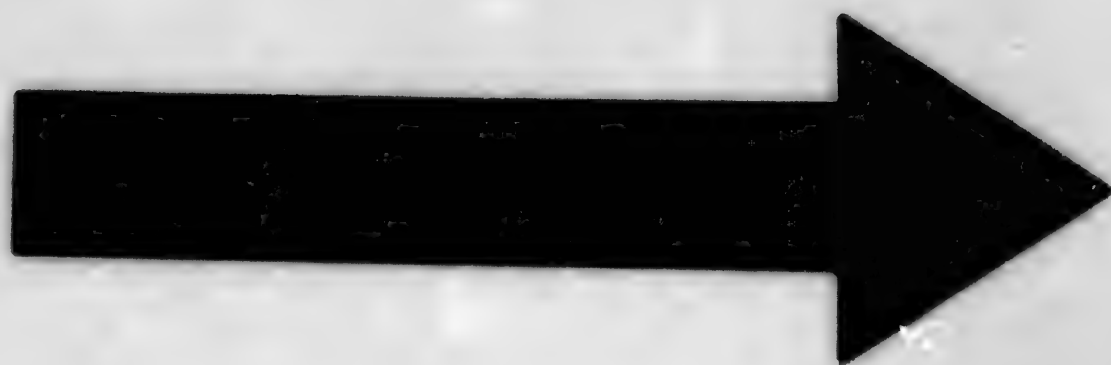
* Among these men were the Amesess, Atkins, Baker, Brooks, Crocker, Dillon, Duff, Durant, Dix, Hopkins, Huntington, Stanford, and others.

† "WASHINGTON, May 11, 1869.

"GENERAL G. M. DODGE: In common with millions, I sat yesterday and heard the mystic taps of the telegraphic battery announce the nailing of the last spike in the great Pacific Road. Indeed, am I its friend? Yea. Yet am I to be a part of it, for as early as 1854 I was vice-president of the effort begun in San



Driving the last spike.
(Union and Central Pacific, 1869.)



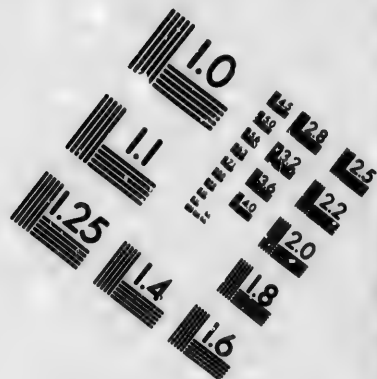
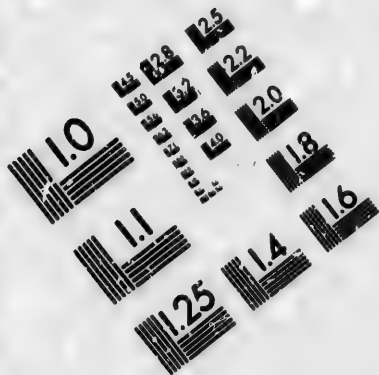
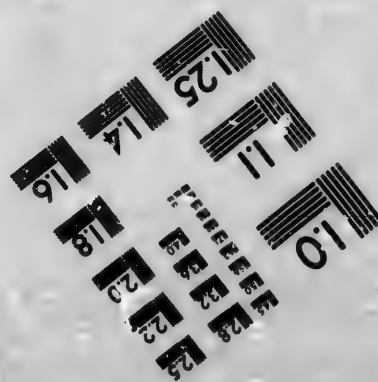
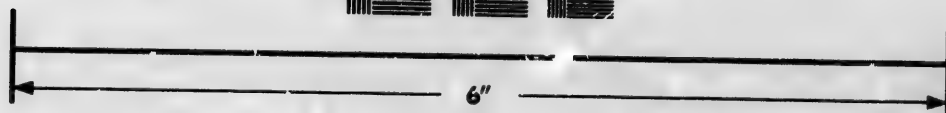
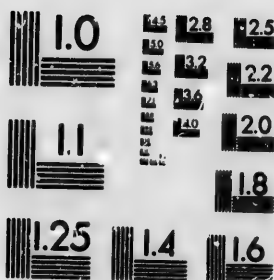


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AFTER THIRTY YEARS.

To aid in the construction of the Pacific railroads Congress made certain grants of land, and in the case of the Union Pacific Railway from Omaha to Ogden, and in the case of the Union Pacific Railway, Eastern Division, afterward the Kansas Pacific, from Kansas City to near the west line of the State of Kansas, the Government gave aid secured by mortgages on the properties, which mortgages were subsequent to certain first mortgages. When these roads failed to earn their charges and passed into the hands of receivers it became necessary for the Government to determine whether it would insist on collecting pay for all the money it had advanced, even to the extent of taking possession of the roads and paying the first-mortgage bonds itself, or whether it would submit to the usual fate of a second-mortgage holder of a bankrupt company and scale down its debt. The arrangement made by President Cleveland with the reorganization committee of the Union Pacific was criticised by Senators Harris, Morgan, and Rawlins in their report of June 26, 1897, as follows:

Francisco under the contract of Robinson, Seymour & Co. As soon as General Thomas makes preliminary inspections in his new command on the Pacific I will go out and, I need not say, will have different facilities from those of 1846, when the only way to California was by sail around Cape Horn, taking our ships one hundred and ninety-six days. All honour to you, to Durant, to Jack and Dan Casement, to Reed, and the thousands of brave fellows who have wrought out this glorious problem, spite of changes, storms, and even doubts of the incredulous, and all the obstacles you have now happily surmounted!

"W. T. SHERMAN, *General*."

"According to the estimates made as of January 1, 1897, the total debt of the Union Pacific Company is \$92,285,344.36. The bond and interest account credits to March 1, 1896, are \$20,146,889.33; further credits on account of transportation service to January 1, 1897, \$1,600,000; leaving a balance of indebtedness of \$70,538,455. As the sinking fund is not to be deducted from this sum, but is to be turned over to the reorganized company on the payment of \$45,754,059.99, the actual loss of money to the Government will be \$24,784,396. In addition to this there will undoubtedly be great losses sustained by other creditors of the company, because this is intended, apparently, to be a complete transfer of all the rights, property, and franchises of the existing company to a new company, by virtue of a decree of the court and by its assistance in the execution of a contract Congress alone can ratify."

It was claimed by the senators named and those acting with them that President Cleveland's agreement to accept \$45,754,059.99 worked a loss of \$24,784,396. This opinion seems to have been verified by the subsequent acts of President McKinley, who insisted on a full payment of that debt, and recovered for the Government the full amount.

The managers of the Union Pacific claim that if they had not relied on the compromise settlement made with Mr. Cleveland they would not subsequently have paid the full debt demanded and collected by Mr. McKinley. They claim that the property is not worth the full first-mortgage debt plus the Government debt, but that, having taken certain steps in accordance with

the adjustment agreed to by Mr. Cleveland, they were compelled to go deeper when it came to the arrangement with Mr. McKinley.

In the case of the Kansas Pacific Mr. McKinley remitted the accrued interest on the Kansas Pacific debt because it was questionable how much that property would be worth when cut off from full association with the line from western Kansas to Denver, on which line the Government had no claim.

CHAPTER VI.

A BRUSH WITH THE SIOUX.

DURING the years that were consumed in the building of the Union Pacific across the plains, the Government scouts, mostly Pawnee Indians, were kept busy guarding the labourers against the hostile hair-lifters of the plains. Upon one occasion a band of Sioux swooped down upon a construction train in broad daylight, firing bullets and arrows into the frightened workmen and driving them into a box car that was coupled at the rear of the train as a place of refuge for the men, and at the same time a place in which to store their rifles while at work. Instead of seizing their rifles, as they usually did, and returning the fire, the labourers slammed the sliding doors to, and threw themselves upon the floor, behind the protection of the sand-filled walls of the box car.

As the Sioux surrounded the car, which was separated from the engine by half a dozen flat cars that had just been unloaded, the engineer opened the throttle and began to back away. The savages had not expected this, and it was with the greatest difficulty that they got out of the way of the moving train. One cayuse was struck by the car, and tumbled over with its rider underneath it. Realizing that their victims

were about to escape, many of the Indians leaped upon the moving flat cars, and climbed on the top of the box car, yelling and shouting, and shooting through the roof, while those who remained mounted galloped beside the train, filling it with arrows and with lead. The engine, backing up, could not use her sand, the pipes being then "behind" the wheels, and it took some time to get them going. Meanwhile a daring labourer in the car, hearing the Indians upon the top, grabbed a rifle and began to perforate the roof. Others followed his example, and a moment later a shower of lead was raining upward, splinters were flying from the boards, pricking and tearing the unprotected legs of the Sioux, and causing them to leap from the top of the car to escape the torture the graders were inflicting.

The engine, having picked up her train, was pushing the box car away from the red cavalry that had been riding at its flanks. Having put in a good fire, the fireman took refuge in the coal tank, followed by the conductor, who happened to be on the engine at the moment when the unexpected attack was made. In their excitement the Indians apparently had overlooked the locomotive and the fact that it was inhabited until the sound of its roaring exhaust attracted those who were riding in the rear. Pulling the throttle wide open, the engineer joined his two comrades in the coal tank.

"Pull your guns," he shouted, "and fire over the side of the tank; they're thicker'n flies!"

Springing back into the cab, the driver kicked the cylinder cocks open, and as the conductor and fireman opened up on one side of the tank, the engineer emptied his revolver from the other. In the meantime the

engine was beginning to pass the horsemen, and the hissing sound and the sight of the escaping steam set the cayuses wild, causing them to carry their riders out of rifle range. A moment later the white cloud from the open cylinder cocks had completely enveloped the band, while the ever-increasing speed of the train had put a safe distance between the pilot and the Sioux.

The engineer from force of habit now glanced back, or rather ahead, over the rolling, plunging flat cars, and, to his utter amazement, saw a featherless, gunless, arrowless Indian clinging to nearly every brake wheel above the flats. The track was new and rough, the speed of the train was simply maddening, and the pose and position of these poor Indians irresistibly funny. The men on the engine knew that if the Sioux had captured the construction gang not one would have lived to tell the tale. They would have been slaughtered, as the thirty-six unarmed graders were slaughtered on the Kansas Pacific. A few might have been spared, however, to be tortured slowly for the entertainment and enlightenment of the little Sioux and their sisters in the cheerful glow of the evening camp fire.

This being true, the trainmen may be excused for putting the Indians off between stations, and while running at a somewhat reckless rate of speed.

Having reloaded their revolvers, the three men clambered to the tail of the tank and opened up on the Indians, regardless of the box car at the far end of the train. The Sioux had found themselves on the top of the train when the engine started to back away, and

the strange sensation, the roar of wheels, the rolling and pitching of the flats, and the sight of their comrades being blown bodily from the top of the box car had so terrified them that they lacked the strength of will to throw themselves off. Perhaps they reasoned that the fire-horse must give out in time, and that when it stopped to rest they could get off with safety. At all events, they stayed there, according to the story, until the bullets began to rattle about their feet, when they loosened their grip, and the motion of the train flung them off. All the enginemen could see was an occasional red-brown bundle of something rolling in the sagebrush, drawn by the suction of the train, and by that sign they knew that they had lost a passenger.

It was a dilapidated-looking engine and crew that arrived unexpectedly at the end of the track that afternoon. Not a pane of glass remained in the cab, while the box car, upside down, would not have held corn in the ear.

When the conductor of the construction train reported to Major North what had taken place, a wire was sent to Lieutenant Murie, who was away on his honeymoon at Omaha.

"Read to me, Jim," said Mrs. Murie that evening, as the young officer lighted his after-dinner cigar.

"I can't read long, love," said the gallant scout. "I have just learned that there is trouble out West, and I must be off to the front. That beardless telegrapher Dick * has been here with an order from

* Now General-Manager Dickinson, of the Union Pacific.

Major North, and they will run us out special at 11.30 to-night."

The lieutenant picked up a collection of poems and read where he opened the book:

"Tell me not, sweet, I am unkind,
That from the nunnery
Of thy chaste breast and quiet mind
To war and arms I flee."

"O Jim," she broke in, "why don't they try to civilize these poor hunted Indians? Are they all so bad? Are there no good ones among them?"

"Yes," said the soldier, with a half smile. "They are all good except those that escape in battle."

"But, tell me, love, how long will this Indian war last?"

"As long as the Sioux hold out," said the soldier.

At eleven o'clock that night the young lieutenant said good-bye to his girl wife and went away.

The scouts were stationed near Julesburg, which was then the terminus of the Union Pacific track.

The special engine and car that carried Lieutenant Murie from Omaha arrived at noon, the day after its departure from the banks of the Missouri.

Murie had been married less than six months. For many moons the love letters that came to camp from his sweetheart's hand had been the sunshine of his life.

An hour after the arrival of the special a scout came into camp to say that a large band of hostile Sioux had come down from the foothills and were at that moment standing, as if waiting—even inviting—an attack, and not five thousand yards away. If we except

the officers, the scouts were nearly all Pawnee Indians, who at the sight or scent of a Sioux were as restless as caged tigers. They had made a treaty with this hostile tribe once, but the treaty had been broken and many Pawnees cruelly murdered by the Sioux. This crime was never forgotten, and when the Government asked the Pawnees to join the scouts they did so cheerfully.

The scouts did not keep the warriors waiting long. In less than an hour Lieutenant Murie was riding in the direction of the Sioux, with Lieutenant Creede second in command, and followed by two hundred Pawnees, who were spoiling for a battle.* The Sioux outnumbered the Government forces, but, as usual, the dash of the daring scouts was too much for the hostiles, and they were forced from the field.

Early in the fight Murie and Creede were surrounded by a party of Sioux and completely cut off from the rest of the command. Their escape from this perilous position was almost miraculous. All through the fight, which lasted twenty minutes or more, Creede noticed that Murie acted very strangely. He would yell and rave like a madman, dashing here and there, in the face of the greatest danger. At times he would battle single-handed with a half dozen of the fiercest of the foe, and his very frenzy seemed to fill them with fear.

When the fight was over Lieutenant Murie called Creede to him and told him that he had been shot in

* This story was related to the author by the late Lieutenant N. C. Creede, founder of Creede Camp, Colorado.

the leg. Hastily dismounting, the anxious scout pulled off the officer's boot, but could see no wound or sign of blood. Others came up and told the lieutenant that his leg was without a scratch, but he insisted that he was wounded, and silently and sullenly pulled on his boot again. Then he remounted, and the little band of invincibles started for camp. The Pawnees began to sing their wild, weird songs of victory as they went along, but they had proceeded only a short distance when Murie began to complain again, and again his boot was removed to show him that he was not hurt. Some of the party chaffed him for getting rattled over a little brush like that, and again in silence he pulled on his boot, and they continued on to camp.

Dismounting, Murie limped to the surgeon's tent, and some of his companions followed him, thinking to have a good laugh when the doctor told him that it was all the result of imagination, and that there was no wound at all.

When the surgeon had examined the limb, he looked up at the face of the soldier, which was a picture of pain, and the bystanders could not account for the look of tender sympathy and pity in the doctor's eyes.

Can it be, thought Creede, that he is really hurt, and that I have failed to find the wound? "Forgive me, Jim," he said, holding out his hand to the sufferer, but the surgeon waved him away.

"Why, why—you couldn't help it," said Murie; "you couldn't kill all of them. But we made it warm for them till I was shot. You won't let *her* know, will you?" he pleaded, turning his eyes toward the

medical man. "It would break her heart. Poor dear, how she cried and clung to me last night, and begged me to stay with her and let the country die for itself a while! I almost wish I had now. Is it very bad, doctor? Is the bone broken?"

"Oh, no," said the surgeon; "it's only painful. You'll be better soon."

"Good! Don't let her know, will you?"

They laid him on a cot, and he closed his eyes, whispering as he did so, "Don't let her know."

"Where is the hurt, doctor?" Creede whispered.

"Here," said the surgeon, touching his own forehead with his finger. "He is crazy—hopelessly insane."

All night they watched by Murie's bed, and every few minutes he would rise suddenly, look anxiously about the tent, and say in a stage whisper, "Don't let her know."

When he awoke the next morning he was indeed hopelessly insane. All he knew was that he was wounded and that she must not know.

A few days later they took him away. He was never to lead his brave scouts again. His reason failed to return. I never knew what became of his wife, but I have been told that she is still hoping for the window of his brain to open up, when his soul shall again look out and see her waiting with the old-time love for him.

Creede called to see him at the asylum a few years ago, and was recognised by the demented man. To him his wound was as painful as ever, and as he limped up to his old friend, his face wore a look of intense agony,

while he repeated, just as his comrades had heard him repeat a hundred times:

“Tell me not, sweet, I am unkind,
That from the nunnery
Of thy chaste breast and quiet mind
To war and arms I flee.”

“Good-bye, Jim,” said the visitor, with tears in his voice.

“Good-bye,” said Jim. Then, glancing about, he came closer and whispered, “Don’t let her know.”

CHAPTER VII.

THE ATCHISON, TOPEKA AND SANTA FÉ.

THIRTY-SIX million seventy-four thousand two hundred and fifty-five pounds of freight were carried by caravan from the Missouri River to Santa Fé and vicinity in the year 1860. Eleven thousand six hundred and one men were engaged in handling the traffic of the Southwest, using eight hundred and forty-one horses. With the first sure sign of spring the long caravans began to creep across the rolling prairies, to return, if they returned at all, with the falling of the first snowflake. It took six thousand nine hundred and ninety-two wagons to carry calico, silk, sugar, salt, and other things to the Mexican men and women there in the old Spanish capital and the villages about. Seven thousand five hundred and seventy-four mules they had, and sixty-seven thousand nine hundred and fifty oxen, and they earned that summer \$5,400,000. A vast amount of money, indeed, for the transportation of a little more than thirty-six million pounds of freight. Two years earlier, in 1858, the United States Government paid Majors, Russell & Co. \$5,750,000 on a single contract for carrying supplies to the army under Albert Sidney Johnston, Joseph E. Johnston, and Adjutant-General Robert E. Lee, in what was called the Utah war.

These things, the richness of the virgin soil, the vast resources of the boundless West, and the fabulous fortunes held by the shrewd merchants of far-off Santa Fé made men marvel at the possibilities of the future, and caused Colonel Cyrus K. Holliday to dream of an Iron Way reaching from the Missouri River to New Mexico, and, some time, on down the desert to San Diego on the Pacific Ocean.

He told his dream to a few close friends, but not all of it. At first he would build from Atchison to Topeka, forty-nine miles. Gradually, and by easy stages, when men had learned to listen to his dream, he would extend the rails to Emporia, Wichita, Fort Dodge, and so on to the State line. At times, when he grew over-enthusiastic, he would talk of extending the road to Santa Fé, with an arm reaching up to Denver. In a little while he had another line from Kansas south to the Gulf at Galveston, but all this was in his mind, not even on paper.

In time others began to discuss the matter, as boys catch the song of a street piano and go whistling it up the highways. Some said it was a wild, impossible dream, others that it was possible, while a few far-seers said it was not at all improbable. The colonel's faith finally caused him to draw up a charter, and as a member of the Territorial Senate of 1859 he secured its passage. The first name of the company was the Atchison and Topeka Railroad Company, but when the charter gave it authority to build to the State line "in the direction of Santa Fé" the name was changed, in 1863, to its present form. On the 15th of the following September the men interested in the new road met and

organized, with the following Board of Directors: S. C. Pomeroy, L. C. Challis, B. F. Stringfellow, D. L. Lakin, C. K. Holliday, F. L. Crane, Jacob Safford, H. W. Farnesworth, S. N. Wood, Joseph Frost, W. R. Sandus, and W. F. M. Arney. Colonel Holliday was elected president, P. T. Abel secretary, and M. C. Dickey treasurer. At the first meeting the sum of fifty-two thousand dollars was paid in for a preliminary survey, but the fearful drought of 1860 put a stop to all things that would cost money in Kansas, and blighted the hopes of all save the indefeasible Colonel Holliday.

In 1863, Congress, through the Kansas Legislature, gave three million acres of land to aid in the construction of the road—about sixty-four hundred acres to the mile. At the next annual election Senator Pomeroy, for political reasons, was made president, Colonel Holliday taking the secretaryship of the company. The new president (again for political reasons) rubbed from the map the line running down to the Gulf, which was a part of Holliday's "dream," and that is why the Gulf line does not appear on the maps made between 1865 and 1869. One of the many conditions under which the grant of land was made was that the road should be completed to the State line "in the direction of Santa Fé" within ten years. For seven long years the plucky promoter importuned the capitalists of the East to take up his enterprise, but was met everywhere with rebuff and ridicule.

In 1867, George W. Beach, of New York, contracted to build the entire road as then contemplated, but failed to carry out the agreement. F. J. Peter, of Dodge,

Lord & Co., of Cincinnati, took up the work abandoned by Mr. Beach, and signed to build from Topeka to Burlingame, Topeka being accessible over the Kansas Pacific.

Albert A. Robinson was the first engineer employed by Mr. Peter. He set the first stake and marked the trail across the Great American Desert to the Pacific slope. Later on we shall see him racing over the plains, up the wild cañons, planting his "colours" in narrow passes and holding the same for the Santa Fé, for to him belongs the honour of having built every mile of this vast system not acquired by purchase. At first it was easy enough, in the partly settled section of Kansas near the river, but as the little band of locating engineers pushed out over the undulating plain the work became hard and extremely hazardous. All day they would ride or drive or walk across the houseless prairie, and sleep at night under the shelter of the stars. Once they drove a stake, a buffalo bull came and smelled of it, snorted, backed off, and stood staring at the thing, trying to understand. A year later a town stood there, a locomotive screamed along the rail, and upon either side of the track for the length of a freight train—high and white as a snowdrift—lay the bleaching bones of buffalo. All the wide West seemed to have been turned into one great slaughterhouse. Dodge City alone shipped three hundred thousand robes that had been ruthlessly torn from the doomed cattle of the plains in the first twelve months following the advent of the railway. It had to be so, they say. In order to subdue the Indian they must cut off his commissariat. What rivers of blood have been made to run

because of the red man! It is all over now. Where lately the painted pirates of the plain swooped down upon the crawling caravan, we hear the song of a reaper reaping in the field. A schoolhouse marks the site of a hard-fought battle from which no man escaped, and happy children romp over the unmarked graves of the forgotten dead. Here in the tall grass the pathfinder and his handful of helpers used to lie and listen for the muffled footstep of the feathered brave. At the end of each succeeding day they kindled a camp fire yet a little farther from home. The Indians of the North had seen men do this same thing on the plains of Nebraska, Colorado, and Wyoming, and had drifted South to get out of hearing of the fire-horse.

Crossing the old Santa Fé trail, they stumbled upon the stakes planted by Robinson, and raised the war whoop and hair, and, sweeping the sand hills as a simoom sweeps the Sahara, killed or captured every unprotected white man that crossed their trail. As the waste widened between the little army of stake planters and civilization, their dangers multiplied. The grass grew shorter, the air clearer, the sky bluer, while the rivers, growing shallow, lay leagues apart, and often sank in the sand as if to escape the scorching sun. The wind, blowing steadily from the West, filled their eyes with alkali dust until they were almost blinded. Now and then a grim and bearded scout would cross the trail and warn them to beware of Indians. In addition to all these dangers, the scouts and trappers began to drop hints of Mexican marauders, half-breeds, plain white horse thieves, and highwaymen of almost every

kind and colour. In time it became necessary to work by day under the protection of an advance guard, and they slept at night, if they slept at all, with gaunt wolves watching them from neighbouring sand hills. At times they measured miles beside the old trail, in sight of the creeping caravan, but night usually found them alone in the endless waste of sagebrush and silence. The fresh supplies that used to come to them once a week came once a month now. Men grew weary of the cloudless sky and dry white earth and took their time. Others sickened and died. Mules and horses perished for want of water, but these "soldiers of fortune" fought on to the end. It was weeks, months—it was years before they saw the white caps of the great Rockies gleaming in the sun, and even then they were unable to guess how many moons must wane before they could come to the foothills.

At times the prowling savages would find their cache and rob them of all their supplies. Often at night, when the weary workers had fallen asleep, the Indians would rush the camp and stampede and carry away all the animals, leaving the chief engineer and his men to walk until another supply of horses or mules could be secured from a passing caravan. Sometimes wild tribes from the North would drive the surveyors from the field, pull up their stakes, and burn them or fling them away in the sagebrush. It might be days or weeks before the plucky pathfinders were permitted to resume their work. At last, sunburned and bearded, the little army of locating engineers came near to the great Rockies and felt the cool breath of the mountain breeze that blew down from the snowy



Cañon of the Rio Las Animas.

heights. Now, as the surface of this sun-dried sea grew rougher, heaving and rolling as the breakers roll upon a lifting beach, it became necessary to employ constantly a guide. This guide was usually an old scout or trapper, who knew the mountains and plains as a Pennsylvania farmer knows his forty-acre farm. This man knew almost precisely how far it was from hill to hill. Gazing upon the surface of a river, he could tell you the depth of the stream and the nature of the sand over which it swept. By dropping a pebble from a cañon wall and counting softly to himself, he determined the depth of the gorge. Standing at the foot of a range, he could measure its mountains with wonderful accuracy with his naked eye.

"Which of these passes is the lower?" an engineer once asked of old Jim Bridger.

"Yon," said the scout, pointing to the south pass.

"I should say they were of about the same height."

"Put yer clock on 'em," said Jim, "an' if yon gap ain't a thousand er two thousand feet the lowest ye kin have 'em both."

Now it happened that the engineer had selected the north pass, but, being persuaded by the scout, he made the necessary test, and found the south pass just fifteen hundred feet lower than the other.

And so, guided by the faithful scout, they came at last to the foothills, bathed their hot faces and weary feet in the cooling stream, threw themselves upon the soft sward, and were soon lulled to sleep by the murmur of the rill.

CHAPTER VIII.

THE SEER OF THE SANTA FÉ.

WHILE prospecting in the archives of the State Historical Society at Topeka the writer unearthed an interesting clipping from a local paper printed in 1860. It is noteworthy as showing how a man and his mission may be misunderstood. Of course, there were politicians and political factions then as now. The road and its boomers had their political friends and political enemies, and yet it is difficult to understand at this distance and to excuse the publication of such stories as this paper appears to be endeavouring to answer. It had been a hard year for the home makers, and much money had been sent from the States to feed the victims of the terrible drought. The following was printed under the heading, The Starvation Railroad:

“It is with a good deal of gratification that we are able to announce that the Atchison, Topeka and Santa Fé Railroad, which has been a source of so much levity with many of our contemporaries, is in a fair way to realize the expectations of its projectors. . . . The building of this road is an independent enterprise, and although inaugurated as one means of affording relief to those who look only to the labour of their hands for

subsistence, it is yet separate and distinct from all measures of relief which have yet been or may hereafter be adopted. . . .

"It is objected that many weeks—perhaps months—must elapse before aid by this means can be effective, by reason of the necessary delay in perfecting surveys, but it must be remembered that it is not during the coming winter merely that our people must be fed. Long months must elapse before we can again become a self-sustaining people; and while we trust that the generosity of our friends in the States will not flag, it must be apparent to all that their gratuities must be seconded by some practical plan of labour and public improvement, or the drain upon the benevolent will become enormous, and our people in danger of becoming demoralized by too implicit dependence upon charity. This project, then, steps in and affords to the many thousands who are now out of employment an opportunity to place themselves above want."

The editorial then closed with the startling announcement that "not one cent of the money collected for charitable purposes is to go to the railroad."

This gives only a faint notion of what the projectors of the enterprise had to contend with even in the West, where every one, it would seem, must share the benefit of the expenditure of a vast amount of money. Men who were upon the ground, who knew the country and its possibilities, were impatient with the capitalists of the East because they hesitated; but when we come to count up the hundreds of millions of dollars that have been invested in American railroads within the past quarter of a century (one hundred

thousand miles of which pay nothing upon the investment), we are bound to acknowledge that the capitalist has not been timid. Indeed, he has rushed in, in many instances, where angels might fear to tread, and sometimes to his sorrow. "Money invested in the Great American Desert will never come back," said the careful capitalist, and wise men in Congress were saying the same thing up to the day almost on which the building of the Santa Fé was actually begun.

There, in the capital of Kansas, you can find to-day the prophet of the Santa Fé, still vigorous and young—just how young he will not tell; and among the older residents there are many who are proud of relating that they "helped shovel the first dirt" in October, 1868, nearly ten years from the day upon which the company came into existence. It would not have been inappropriate for this little band of graders to have raised a column upon the low mound of dirt they threw up that day and to have chiselled thereon:

"Here endeth the trail of the Indian, the buffalo, the caravan, and the cowboy."

Of all these men and things that passed away with the tolling of the bell of the first rolling, quivering locomotive that crossed the plains, the buffalo has our deepest sympathy.

Poor, clumsy, helpless, hunted beast! They made it contribute its flesh to feed the hungry graders of the road, and almost the first train back to civilization carried its blanket, and then came back for its bones. In fact, it was the very existence of the buffalo that gave men faith in the project.

It is said of Thomas J. Peter, who built the first thousand miles of the road, that he came to Kansas for the first time, not with the belief that the road would be built, but rather to satisfy himself of the utter impracticability of the enterprise, but that the moment he saw the vast herds of bison feeding upon the wild grass he said that beneath that grass was bread for millions of men.

A temporary bridge was constructed over the Kaw at Topeka, and the "end of the track" began to creep slowly toward Santa Fé and the Pacific coast. Even then not many men believed that a railroad would ever pay beyond a few hundred miles west of the Missouri River, but the Government, they said, might extend the line to the coast, in order to open a mail route through the Southwest and to facilitate the handling of the army and army supplies. In fact, there had been talk for years of a line to be built by the Government over what was called the thirty-fifth-parallel route through New Mexico and Arizona.

There was great interest in both Atchison and Topeka when work had actually commenced, for both were playing for first place as the road's permanent headquarters, as well as for the distinction of being the first city in the State. With all his gifts as a prophet, the father of the great Kansas Railroad was unable to foretell at that time that the metropolis of Kansas would eventually be in Missouri. Indeed, it would have given the people of Kansas an opportunity to have demonstrated the truth of the old saying that a prophet is not without honour save in his own country, if such a prediction had been published.

It must have been a big undertaking to persuade an Eastern man that the new road, which was to run from one side of a plague-stricken Territory to the other, was a good thing. Fancy a capitalist opening his mail and finding an invitation to invest in a Kansas railroad, and in the same mail a prayer for help for the starving sufferers from the drought in that same region; but somehow, somewhere, in one way or another, the money was obtained—a good deal of it at home. Poor as they were, the people were willing to help to make the road which was to help to make Kansas. Here, for the first time in the history of this country, so far as we know, the several counties through which a proposed road ran voted bonds for its building. By law they were limited to two hundred thousand dollars, but some went to a quarter of a million, while nearly every county touched by the main line contributed the full amount. And well they might, for aside from the benefits a railroad would bring, each of these counties annually received thousands of dollars in taxes from the railroad. Reno County, for example, could give a quarter of a million and get it all back in taxes in one year.

It was a great day that marked the completion of the road to Wakarusa, thirteen miles from Topeka. Mr. Peter, the builder and first superintendent, borrowed a locomotive and a coach from a railroad with which he had been connected, and gave a grand excursion to "the end of the train." He was an ardent prohibitionist, and would have no intoxicating beverages on the train, but some of the more thoughtful people of the place provided themselves with bottled

beer and soda biscuits and prepared to celebrate. To be sure, the road was quite new, there were many low joints and high centres, but the driver caught the enthusiasm that seemed to be contagious and "let her go." He covered the entire line—nearly thirteen miles—in a little over thirty minutes.

The people of the little settlement turned out *en masse* to witness the coming of the cars. There was a big feast, with speeches, and toasts that were drunk in anything a man happened to crave or have, from whisky to spring water. Some of the orators predicted great things when the road should reach the State line, but each of these usually glanced about to see how his prophecy, in which he himself had little or no faith, was being received. To be sure, nobody was bound to make his predictions good, and as they were all out for a good time, the guests of the company, they could afford to be liberal with their forecasts. Finally, the time came for a speech from Colonel Holliday, the originator of the enterprise. He was received with the wildest enthusiasm. His road was an established fact, they could see it and hear "the steam cars blow." His dream had come true. Even his neighbours, who are usually slowest to recognise real merit so close to home, said that he had done a wonderful thing, but they were by no means prepared for some of the predictions which the pathfinder was about to make.

After thanking the people for the enthusiastic reception they had given the road, he said that they would build a branch to southern Kansas and the Indian Territory. This statement caused thoughtful men to nudge each other. In the next breath the

southern Kansas branch was completed to Galveston, and men smiled broadly. In a little while the main line had crept across the plains and a branch had been built to Denver. Returning to the main line, the colonel strengthened his company by building a number of feeders in western Kansas, and, having secured more money, some new and heavy equipment, took a run for the crest of the continent. Now the audience entered into the spirit of the fun, and cheered the speaker. It was hard pounding over Raton Pass. At times it seemed as if the pathfinder would not get beyond the hill, but finally the man for the occasion was discovered, and after a few zigzags and switchbacks he whistled for the summit.

Here a new difficulty confronted the bold builder of railroads, but he faced it unflinchingly. The Mexicans of New Mexico were not ready for a railroad. The bull team and the wooden-wheeled cart were swift enough for the dark people of that Territory. The rich merchants of Santa Fé, who thought nothing of giving a travelling man a single order for one hundred thousand dollars' worth of goods, were going to die hard. Besides, there were the Indians standing with ready rifles (supplied by the Government, to be used on Government troops) to dispute the pass. Looking away to the West, the pathfinder saw other mountains, as rough and high as Raton, but having come thus far he would not turn back. Having surrounded himself with an escort of United States troops, the dauntless driver pulled out again. In a few moments he was falling down the Western slope through bits of green forest, over wide reaches of

sunny vales, through deep, dark, and narrow cañons and cool, sunless gorges. He was running now for Glorieta, and the very fury of his flight seemed to awe the Indians, and caused the sleepy Mexicans to stare in open-mouthed amazement. Now he began going up again, swiftly at first, then slowly, and ever more slowly, till at last he crawled to the crest of the hill and dropped over into quaint old Santa Fé.

Here the applause was deafening, for the audience guessed that the goal had been reached. One or two men sprang upon the platform of the car to shake the orator's hand. It had been an interesting, an inspiring run, and they all felt that the enthusiastic driver deserved a little rest and some refreshments; but the colonel, wiping the perspiration from his brow, took water and pulled out for the Pacific coast.

This was carrying the entertainment rather far, but it was exciting, and they were willing to be entertained. Of course, none took him seriously now. Some considered it as merely a part of the show, others saw in this flight across the continent an illustration of the reckless daring of the audacious driver of a night express—the daring that comes with the annihilation of space and the slaughter of time. There was the same steady look ahead, the same set, calm, half-smiling face that one sees in the cab as the shrieking steed plunges into the windowless night, without knowing, apparently without caring, what awaits it around the curve. It is an expression that might come from dauntless courage or abject fear. Not a few of the friends of the pathfinder saw now that he was desperately, fearfully in earnest. As he sped on toward the

at sunset the ever-changing panorama grew wilder with each succeeding twist of the trail. The earth seemed dryer and warmer, the natives darker and more daring, as he dashed down a wild *arroyo* beneath the overhanging homes of the aborigines. Over the verdureless, lifeless lava beds, down the valley, past Albuquerque, he gathered a momentum that carried him to the crest of the continental divide, more than seven thousand feet above the sea.

But still beyond, and immediately in his path, yet another range lifts its hoary head to the heavens. Slowly now he descends the rugged mountains until the broad valley is seen; then, releasing the brakes, he passes Winslow with the speed of the wind, roars along the Cañon Diablo, lifting like a soaring eagle after a downward pitch, and finally rests on the summit at Flagstaff. Here he pauses for a moment to drink in the wild grandeur of the scene—of mountain terraces, broad plateaus, deep gorges, wide arid plains pied with plots of green, high white mountains and narrow vales fenced about with painted buttes and wild, fantastic, splintered, spire-topped cliffs; and below, and away beyond it all, the desolate wastes of a waveless sea—the Desert of Mojave. Between this last stop and the Pacific lies an Egypt unexplored. Barelegged women are working in the field, and men in shady places are patiently drilling holes in hard flint with a drill driven by a stick and a string. High on the hills hang the abandoned homes of a once prosperous people, whose hearth fires, mayhap, were as lighthouses to the people in the Ark. Across the path of the pathfinder, just at the foot of the hill, flows a mighty river whose

waters have washed the feet of some of the grandest mountains in America. On the way from the springs in the Rockies to this breathing place at the edge of the desert they have dashed through some of the deepest, wildest gorges that the prowling explorer has yet discovered. Along its banks live many tribes of half-naked, half-wild, brown-skinned people, who squat like Orientals, worship strange gods, and eat mutton with the wool on. Across the desert in the broiling sun a zeal-blind *pénitente* is dragging a cross, followed by other zealots who chant, and cheer, and flog themselves with cactus canes.

Glancing briefly at these things, and other things equally strange and interesting, the dauntless driver pitches over and begins falling down toward the dead Sahara. Leaving the "Big Water," he enters the dreary desert, where mocking, sapless rivers run, where the sun pours pitilessly from a cloudless sky, and the elusive mirage lures men to death. Still on and away over the glittering sand the driver drives, nor stops to eat, or drink, or sleep, until at last his spent steed stands panting at the Golden Gate.

Again the applause was loud and long, and ere it had ceased the speaker held up a stick that resembled a rolled-up window shade. Shaking out the roll, he showed a crude map—a painting of his prophecy, a drawing of his dream. There, upon this bit of canvas, men saw the Atchison, Topeka and Santa Fé Railroad running from the edge of "civilization" across the plains, with an arm up to Denver, another reaching down to the Gulf of Mexico, and scores of feeders, and

the main line crossing the Rockies and ending at San Francisco.

"See," cried the colonel, pointing to his picture, "there rolls the broad Pacific, and on its breast are the ships of the Santa Fé riding in from the Orient!"

This climax seemed so utterly absurd that men shouted and laughed like schoolboys. One Tom Anderson, a tall young man, fell upon the grass, kicked, and cried, "Oh, the damned old fool!" But the dream has almost all come true.

CHAPTER IX.

LIFE IN A GRADING CAMP.

ALL things that belong to a contractor, from a mule to a monkey wrench, including ploughs, wagons, and scrapers, are thrown in a lump, in the talk of the track, and are invariably referred to, *ensemble*, as "the outfit." The location of an outfit is called a camp.

When McDuff has established his outfit at Ivanhoe and begun to grade the roadway, the classic name of that place is changed at once to McDuff's camp, and it retains that name until the road is completed and a time-table printed; then it becomes Ivanhoe again, but it is never the same. It may wash up and quiet down, but the hush after the rattle and bang of the outfit will leave it as dead as a Western town that has lost the county seat.

When the outfit has halted and strung itself out along the margin of a little stream, the camp begins at once to shape itself. There are no managers or secretaries connected with a grading outfit; there are bosses and timekeepers. One of the first tents to go up is the hotel tent, and the man who runs it is the boarding boss. He is usually a jolly, fearless man, a good hustler, but not necessarily addicted to real manual toil. His wife does that. From four in the morning

until midnight this slave of the camp is on her feet. To be sure, there are men cooks, and flunkies and dish-washers, but the boarding boss has but one wife, and she must oversee everything. She must see that nothing goes to the pigs until all the boarders have refused it. Her tired but ever-smiling face repels more kicks than a State militia could repel. If one of the drivers is kicked by a mule, she bathes his hurt with horse liniment, and allows the wounded man to sit in the rocking-chair in the eating tent. She is at once a mother to the beardless and a sister of charity to the bearded men. Her private tent is the one spot respected at all times by the rough men of the camp, whether they be drunk or sober.

After the boarding tent, the sleeping tent goes up—a great canvas under which a hundred men may sleep. In lieu of this they may use a number of smaller tents. The bunks are made by driving stakes in the ground to take the place of bedposts, and instead of springs they use soft pine boards. The hair mattress is usually stuffed with straw. But it is a glorious bed. After eight or ten hours of following a team, dumping over and dumping back, a man can sleep on a pile of scrap in a boiler factory.

If the water be good and the food untainted by a long haul or hot weather, the health of the camp will be excellent. There is no camp doctor. Living in the open air, working hard, eating and sleeping well, the men want little from a medicine man. The boss has a medicine chest filled, for the most part, with medicated bandages, done up in rolls and pinned. A few simple remedies are stored in the neat case, but usually a man

who is careless, or awkward enough to get hurt, gets spring water and horse liniment.

When the sleeping tents are up, the boss's tent and the tent for the timekeeper are pitched. Down near the river are the long awnings called the stables, and, hard by, a black, dirty tent where the shoeing and repairing are done. If the weather is warm, there may be no covering whatever for the animals.

When the camp is established, the various bosses take their places and the work begins. The stable boss assigns men to the teams. He may have a hundred horses and mules, but he knows them all by name. The driver and harness become a part of the team after the first day, and neither is ever changed unless there is good reason for doing so. Each man is personally responsible to the stable boss for the good care of his team. The stable boss is responsible to the boss, who is expected, when the job is done, to turn the outfit over to the contractor as good, barring wear and tear, as when he took it. If a man wilfully destroys property he is charged with it, and, as a rule, there is no appeal from the findings of the boss. In fact, the labourers rarely ever know the contractors except by name. In spite of the absolute empire of the boss, there is very little that borders on tyranny. The average grader can take care of himself in a rough-and-tumble fight, and the boss will not resort to pick handles, as sea captains do to marline spikes, according to sea stories. To be sure, there are exceptions in men and circumstances. There have been times when the "Jerries" and the "Dagos" have got mixed, when the boss and his assistants have been

obliged to face the rioters and quiet them with a formidable display of firearms; but if there are no "foreigners," but just Irish and ordinary labourers, the boss rules his subjects with comparative ease.

One of the most important bosses is the walking boss. He is to the contractor what the camp slave is to her lord, the boarding boss. He has his eye constantly upon the men. In ferocity he approaches nearer to the ideal sea captain than any man on the work. What the camp slave accomplishes with sympathy and horse liniment he brings about by the use of vigorous profanity and time checks. They are both respected. If a man is caught soldiering, he is jacked up; the next time he is jacked up a little higher; and with the third offence the walking boss calls the time-keeper, whom he orders to give the man his time, adding, for the enlightenment of the others, that this is not a Salvation Army, but a grading outfit. As a parting shot to the discharged man, he advises him to buy a drum if he wants to be a soldier.

This little incident has a good effect. A hundred whips crack, and at the end of an hour each of the one hundred teams has brought in an extra scraper of dirt. At twenty cents, five scrapers to the yard, this means, for a hundred scrapers, five dollars; and that is where the skill of the walking boss comes in, and it counts.

The younger men are usually selected as drivers, the older for ploughing and filling, and the Irish for shovellers. A man with a good eye and an unmistakable accent is selected for the important post of dumping boss. He stands on the fill and indicates with his shovel where he wants the dirt dumped. Between

teams he levels the dirt, and under his constant care the grade grows with just the proper pitch, until the top is levelled off ready for the cross-ties.

Promptly at noon the big watch of the walking boss snaps and he calls time. Every man in the outfit hears him. The mules hear, and if the scraper is ready to dump, the team will stop instantly and let it fall back. Five minutes later the animals are cooling their feet and quenching their thirst in the running brook. When the mules have been fed the men take the path—it matters not what path, for all the camp trails lead to the boarding tent.

Seated upon low benches that run beside the long tables, the men fall to, and begin to appease an appetite that makes the coarsest fare taste deliciously. The meal is enlivened by choice bits of camp slang, which may be dignified by a word now and then from one of the bosses.

Some wag will inquire of the man who has received his time whether he intends to flog a drum or toy with a tambourine, but in the laugh that follows the bosses will not join. The boarding boss, from his little pine desk in the corner of the tent, will glance along the line of tousled heads to see who has been bounced, but it gives him no trouble. He knows that the time-keeper has deducted the man's board, including this meal, and that he will get the money.

Fifteen minutes after the beginning of the meal the men begin to push back their seats. In twenty minutes they are all out, and the boss, sipping his coffee, is joined by the slave of the camp, and possibly by the boarding boss. In the big sleeping tent the

men laugh and talk and smoke. Some are sewing on buttons, a few are reading, and all are resting.

At one o'clock the shrill voice of the walking boss is heard, and the men go back to work again almost as cheerfully as they "knocked off." For the next hour the walking boss is extremely busy. The men and the mules are lazy after the hearty meal, and it takes a vast amount of profanity to get them stepping again.

The sun is still high in the heavens when the boss calls time again, and the men go singing down to the stream. The evening meal is taken with more leisure, and then they saunter out. If the camp happens to be near a town, nearly every one goes in to spend the evening, some odd change, and often a good part of the night. If the contract is a big one and far from a town, there may be a "company store," stocked with overalls, gloves, hats, flat tobacco, and red shirts. Here any man may get credit if he asks it, for the bill will be taken out of his time before he is paid. If the contractors and bosses could have their way the outfit would be kept in the country always, but that can not be; and as the camp is moved nearer a Western town the troubles of the bosses increase in proportion to the increase of the revenue of the shops and saloons of the place they approach. The day following pay day is usually devoted to shoeing idle horses, unless the smith gets drunk, and it is usually a week before the teams are all out again. If a man is discharged, the chances are two to one that his successor will be no better, so the bosses content themselves with relieving their minds after their own fashion, and put the man to work again. The slowest, quietest town in the West

quickens at the approach of a big outfit. Every day new faces appear upon the streets. Empty houses are leased, new houses and tents spring up everywhere. All sorts of people come to pick up a living, directly or indirectly, from the sweat of the graders. Drinking saloons and gambling houses flare out on the main streets, while other sinks of iniquity fill the byways. Here the men who had been well and happy at McDuff's Camp stumble after the teams, half asleep, for the nights that should be given to sleep are spent in riotous living.

At Newton, Kan., the Santa Fé crossed the cattle trail that came up from Texas. Here the iron trail makers and the heterogeneous herd that followed them flowed into the stream of cowboys that swept up from the Southwest, and there was trouble. The armed retainers of the cattle barons of the Panhandle had known no law on the wide plains, and refused to be arrested or interfered with at all. The steel-nerved, cold-faced, conscienceless gambler took the earnings of the cowboys and the grade maker with commendable impartiality. The cattle drives to Abaline had already given the place a name, and when the graders and their followers flowed in upon Newton, it took rank at once as the toughest community under the sun. Jim Steel, one of the gifted historians of Kansas, says:

"They counted that day lost whose low descending sun
Saw no man killed or other mischief done."

Newton, in 1872, was taken by untravelled people of the East as a typical town of the West, and the reputation of the place frightened timid investors, for

it seemed like burning money to put it into an enterprise in so lawless a community. They could not know, in their quiet homes there on the Atlantic, that nearly all the people who were being killed off at the front had been itching for it for years—that the place was better after each funeral. No man could say of a surety then that when the town had boiled down it would become one of the cool, quiet, resting places of the plains, and that a day would dawn when there would be no drinking and no drunkards in all this vast empire called Kansas. Indeed, there was little to warrant such a prediction in 1872, for there was no night in Newton then. It was just a change of shift from sunlight to lamplight, and the rattle and riot of the place went on.

One of the first permanent improvements made by the thoughtful citizens of the place was the establishment of a public graveyard. It began ten rods north of the proposed railroad, and was bounded on the east by the Missouri and on the west by the Rocky Mountains. There was no charge at first for places, and it began to fill up rapidly. In one month twenty-eight men were buried there.

To-night the cowboys and the graders might be against the gamblers, to-morrow night might find the graders and the gamblers leagued together. And then there were countless insignificant, single-handed fights, in which only one or two men were killed. Viewing the place from afar, one would say that a man's life was not worth a straw there, and yet there is one man, at least, who saw it all. The land commissioner of the Santa Fé passed through all these wild towns when

they were in the making, including Dodge City, and he declares that he never had an unkind, not even an unpleasant, word from these hard men of the frontier.

The bitterness and jealousy between the gamblers and the cowboys grew at Newton until war was raging almost unbroken by sleep, day and night, between the two factions. A gambler who had been widely advertised by the Panhandlers as the leading candidate for the next funeral concluded to go to the chief rendezvous of the cowboys and have it out. As he entered the place, a half dozen men saw him and were ready to begin upon the slightest provocation.

"All set!" cried the gambler, throwing his back against the wall and facing a dozen or more men who surrounded a faro table. As his back went to the wall his hands came up, each holding a self-acting revolver. The cowboys, every one, reached for their hip pockets. Some of them never got far enough to add anything to the awful uproar, for the gambler was pouring out two streams of cold lead. In five or six seconds the lamps had gone out, so had the people, and the place that had been a living hell was perfectly quiet.

Outside, men were tramping the board walks. Far away the sound of men running could be heard; these were the graders who had escaped when the curtain went up. The bartender, who had taken refuge among his bottles behind the bar, rose in his place, and after listening for a moment broke the silence.

"Well!"

"Well!" said a voice down in the darkness; "strike a lite an' le's count noses."

The bartender made a light and looked into the

cold smiling face of the gambler, still standing with his back to the wall, holding his empty smoking guns. Upon the floor eight men lay dead. And the most remarkable thing about it all, as Colonel Johnson expressed it, was that they were all dead.

CHAPTER X.

PEOPLING THE GREAT AMERICAN DESERT.

THREE million acres of land! That's what the Government gave to the Atchison, Topeka and Santa Fé Railroad Company to aid in building a line along the old Santa Fé trail from the Missouri River to the eastern boundary of Colorado. That was a vast empire to be opened up at once and offered for sale to home seekers on easy terms, and yet it was only a garden spot—a mere fraction of the sunflower State.

According to Andrea's History of Kansas, there could not have been five thousand people along the entire line of the proposed road at the time of the transfer of the grant. By the time the road was completed, in 1873, there were forty thousand. In the succeeding seven years the number grew to one hundred and twenty-five thousand, and at the end of the first decade, one hundred and forty thousand people had come to make homes between Topeka and the State line.

One of the big problems with which the early managers of the new road had to deal was how to handle this vast tract of land, to advertise it, and to place it upon the market. It could not be thrown into a sample case and carried East, or to Europe. Prospec-

tive purchasers had to be brought to the Territory, in order that they might see the land.

In 1870 a land department was established, with Colonel A. S. Johnson as chief commissioner. Colonel Johnson had been in the employ of the Government, and was well equipped for the work before him. The first three years he spent "in the field," surveying and laying out the land. The grant comprised alternate sections in a ten-mile strip on each side of the main line of the road through Kansas. Wherever a section had been pre-empted by a settler the company was indemnified by the right to take land in the second ten-mile strip on each side of the road. Many conditions were imposed by the Government as to the price, method of selling, etc., and the lands were all taxable. This was a good thing for Kansas. In a few years these ten-mile strips were lined with good school buildings and substantial courthouses. There are many instances where one section of land was taxed to build three schoolhouses. This was accomplished by changing school districts so as to bring the given section under the necessity of contributing to the building of the three separate houses. As has already been stated, Reno County received for many years a quarter of a million dollars annually in taxes from the land grant. There was a time when Colonel Johnson paid nine tenths of the taxes collected at Dodge City, meeting the county commissioners in a saloon kept by the chairman of the board. At times they met at the houses of other commissioners, but the colonel does not remember having attended a single meeting for the first few years that was not held in somebody's

saloon. These were feverish sessions, held in holes full of bad air, tobacco smoke, and profanity, and sometimes there were loud explosions that put out the lamps, and then there would be darkness, disturbed only by strange oaths and the smell of burned powder. If the land commissioner happened to be making a speech, protesting in the name of his company against the findings of the assessor, the mixed audience would cheer him lustily, until, in self-defence, he ordered the liquor man to give them liquor. Ten minutes later they might be cheering one of the county commissioners and calling the colonel a monopolist, and they would keep it up until the empty glasses lined up along the top of the bar.

When the land had all been surveyed and properly plotted, the land department set about devising ways and means by which the real estate could be advertised. After months of careful investigation, it made up a list of between three hundred and four hundred leading newspapers, and invited the chief editor of each to "come to Kansas." The invitation stated that upon acceptance the necessary transportation, including Pullman passes, would be mailed to the editor. In this way the land department gathered at Atchison, upon the date fixed, over three hundred of the leading editors and writers of the country. A special train was provided, with dining and sleeping cars, and the joyous company pulled out for the West. At nearly every town where the train stopped the villagers had a banquet spread for the visitors. They had booths and floats upon which they displayed the wonderful products of a two- or three-year-old farm. The result of

this excursion was about a thousand columns of reading matter that money could not have bought. The effect was soon felt in the passenger department, in the immediate increase of business from various parts of the country at half fare. If a home seeker bought land, his fare was refunded. Thousands came, saw, and were conquered. Other thousands came because it was cheap and they wanted to see the country. The drought of 1860 had given Kansas a hard name, and it took her a few years to get back to her former standing. She was like a harrow left wrong side up. She seems to have caught a little of everything that blew by—John Brown, border ruffians, drought, guerrillas, and grasshoppers. And she just kept quiet and caught populism and prohibition, and finally a warm south wind wimpled her fields of golden grain, a great wave of prosperity engulfed her, and then she turned to and went to work.

For the first few years the land department was a heavy drain upon the revenue of the road. Three years with a large force of men surveying, often under paid guards, and sometimes protected by a military escort, was no small item of expense. Scarcely a day passed that they did not catch glimpses of lone Indians watching them from the low ridges. Far off on the cross trails they could see long lines of savages following each other over the edge of the horizon.

Whenever they came to a section that had been pre-empted they were obliged to travel ten miles to the north or south before they could begin surveying, and another ten to complete the work. All this, however, was comparatively inexpensive, but when the land de-

partment opened offices with a large force of clerks, and five hundred "foreign agents" scattered over the United States and Europe, the operating department had a heavy load to carry. The expenses of the land office reached the enormous sum of one hundred thousand dollars a year. In time the land began to sell, but very little was sold for cash. There were various forms of agreement giving the purchaser two, three, six, seven, and eleven years in which to make final payment. Agents had to have a commission, of course, out of the first cash payment. A foreign agent, as those outside the State were called, would bring a party of home seekers and drop them off at a station, where they became the prey of the local agent. At one station there might be a community of Swedes, at another of Englishmen, and in another locality, where the soil was sandy, they would plant Irishmen. So the foreign agent would wire that he was coming with so many Danes, or Yankees, or whatever he happened to have, and the land department would say where they should be unloaded. It was a rare thing that a party ever came and went away without some purchase of land, for the country was very attractive in its virgin beauty. There was great jealousy, too, between the local agents. Colonel Johnson tells one story that illustrates this, and at the same time gives an idea of the airy freedom of a playful frontier town.

A party of ten prospective purchasers had dropped off at one of the stations well out, and the local agent had been delighted with the almost sure signs of a sale. One man, however, a doctor by profession, insisted upon seeing Dodge City before buying, for if

they bought land afterward, the excursion would be free. At midnight the doctor got his nine friends aboard a freight train and landed them at Dodge just before dawn, and in time to witness a performance in Kelly's saloon, in the course of which a prominent citizen removed with two shots the high heels from the boots of a tenderfoot.

When the agent learned that his people had been spirited away he wired this same Kelly who kept the saloon: "Ten home seekers on local; one doctor with high hat—put him in jail." Kelly pondered over the message, and then made the doctor's acquaintance. He soon learned that the doctor was the emperor, and that the balance had to do as he said. He learned incidentally from one of the party who had overheard this that the doctor was "a durned liar," and that the whole company would be delighted to lose him. Kelly, who lived like an Irish lord, invited the doctor to gallop with him after the hounds when the sun had touched the sand hills, and the doctor accepted.

In a little while they got an antelope up, and the magnificent greyhounds that Kelly kept soon dragged it down, whereupon the two sportsmen started for home. Suddenly, from behind a little knoll, a band of bad Indians dashed down upon the horsemen, and Kelly, to the doctor's amazement, put spurs to his horse and headed for home. The doctor followed, but his horse, which seemed to have been selected for its gentleness and utter indifference to firearms, fell rapidly to the rear. Kelly's cayuse ran away from the doctor as the California Limited leaves a way freight.

The bullets fairly rained around the flying horsemen, whizzing and singing in the doctor's ears. Finally a stray shot perforated the medicine man's high hat, and he howled lustily for Kelly to come back, for he dreaded to be alone at the end. To be sure, the Indians would not follow them into the town, but as the bareheaded doctor galloped back to the station another danger confronted him. He was promptly arrested by a man who called himself "the city marshal," and locked up for carrying concealed weapons.

"But they all do it," protested the doctor. "Every man in town's got a revolver or two hangin' on him."

"Yes," said the marshal, "but that's different. They live here, an' they know what sich things is fur. B'sides, they ain't concealed." And then the key clicked, and the unhappy doctor was left alone to reflect upon the native cussedness of a Kansas town.

While these things were happening at Dodge, the agent had arrived, rounded up his party, carried them back, and fitted them all out with a future place of residence. In the afternoon Kelly received another brief message in an envelope marked "R. R. B."

"Let him out," was all it said, for the agent knew Kelly, and knew that somehow, somewhere, he had the doctor in safe keeping.

Kelly went beating upon the prison door and demanding to be admitted; and when an officer came and opened the jail, he rushed in and fell upon the doctor's neck and said in a loud voice that his friend should be released. And it was so ordered, for Kelly, before the coming of Bat Masterson, had the ordering of things at Dodge City. In fact, it was this same Kelly who had

ordered the doctor's arrest, at the same time ordering the Indians, who were only happy, hilarious, hand-painted cowboys, and it all came under the general head of "having fun with a tenderfoot."

Colonel Johnson told many interesting stories as we travelled eastward over the plains one day, but not until he had exacted a promise that no reference should be made in this book to the fact that he happened to be the first white child born in Kansas. Marking the progress that men have made there, and looking into his face, that refuses to grow old, one finds it easy to refrain from making the statement. It argues well for the West, however, that this man's life has all been passed there. His father was one of the very first missionaries sent out from St. Louis for the enlightenment and amusement of the savages, and they murdered him in real Indian fashion. It is a remarkable fact that those who have suffered much at the hands of the Indians are usually least bitter against that rapidly fading race. All his life, until they were driven away, this "white child" lived with the red men and suffered greatly at their hands, and yet one hears no word of complaint from him. Perhaps he is able to see, as few men do, the pathos that runs through the story of the Indian.

The ex-land commissioner vouches for the following story, which shows the Indian mode of reasoning:

A man, who fancied that he had a call, went into the West to preach the Gospel. He went so far that the Indians with whom he finally stopped marvelled that any white man could penetrate the Red Lands so far and keep his hat on. The old chief was interested at

once, and finally called his people together to hear the preacher preach. The stranger began with a simple narrative of the creation of the world, and it went so well that the old chief gave him his hand, saying: "White man, you're all right. That's a good story, and no doubt a true one, for if somebody hadn't taken the trouble and gone to work on the world we'd have no place to stand on. That's what I tell my people. I say, 'Squaws work; men fight, and do something.'"

The newcomer was so elated that he persuaded the old chief to call another meeting, and upon the second occasion he told the story of Job, his patience and affliction, and notwithstanding the prosy, not to say unattractive, nature of the narrative, it went fairly well, and the white man asked for another meeting. The old chief protested. It was summer—the busy season. A lot of Indians of other tribes, a few soldiers, and some cowboys needed killing, and there were the caravans on the trail to look after. Finally, however, the chief yielded, and then the white man overdid the business. He told a story that has puzzled many a pale face. It was the story of Jonah and the whale. The Indians listened respectfully, though somewhat impatiently, and when the story was finished many of the war chiefs got up, grunted, and walked out. The old chief thought a moment, then, springing to his feet, said: "White man, that's a lie, and you're a liar. Now go."

Probably the best true boom story of the West is told of a man and a corner lot at Garden City.

To be sure, all the people who came to Kansas have not grown rich. Many have not prospered at all.

Some have tried hard and failed, others have failed without trying. Some men would fail in a bank vault.

One of the best land agents on the line was located at Garden City. Many of these agents made money in the twenty years during which Colonel Johnson was surveying and selling the big land grant. This Garden City man had prospered by reason of his connection with the land department, and was anxious to show his appreciation of the commissioner's friendship. But the colonel refused all advances; it was all business and no sentiment with him. The agent had made sales and had received the usual commission, and that, he thought, ought to end the matter, but the agent was persistent.

One day, when the land commissioner and the agent were driving out to look at a section of land, the agent left the road at the edge of the town and began driving round and round in the high grass. He was looking, or, rather, feeling for a stake. When he had found it he told his friend that that stake marked a valuable corner in his addition to Garden City, and that he was going to give Mrs. Johnson a couple of lots.

"You'll do nothing of the sort," said the colonel, "unless you pay for recording the deed, for the lots are not worth it."

The agent thought they were, and was more than willing to pay for the privilege of giving them away.

"Mrs. Johnson wants an Indian shawl," said the colonel, as the two men drove past the corner lots that were sleeping in the tall grass as they returned to the station, "and when they bring enough for that you can sell them."

"Why, you can go out and rope an Injin and get her a shawl any day," said the agent.

"Ah, but she wants a shawl made in India; they cost a thousand dollars."

"When's she going?"

"She goes to Europe next April."

"All right," said the agent; "we'll see what we can do."

In a few months he saw the colonel and said he had been offered two hundred dollars for the lots. At Christmas time he wrote that they were worth four, meaning, of course, that he could get four hundred for them. He was a real-estate man by nature, instinct, and training, and so spoke the language.

In March he wrote to ask upon what day Mrs. Johnson would sail. The colonel gave him the date, and received by return mail a melancholy letter to the effect that six hundred dollars was the very best he could do, and asked for orders.

"Hold them," wrote the colonel. "I'm going over in July to bring her back, and I'll take the money to her."

"Well, did you go?" asked an eager listener.

"Yes," said the colonel, "and I took a thousand dollars, which was the price paid for the corner lots."

As the train pulled out we could see the lots, but the waving grass was gone. They have been fenced, and the field in which they lie is worth a hundred dollars an acre.

The largest colony ever established by the land department was near Newton, in 1874. Something over a century ago a number of Mennonites from Ger-

many settled on the Molatchna, in Russia. They are called Mepronites after Mennon Simons, of Friesland, their founder. They believe that the New Testament is the only rule of faith, that there is no original sin, that infants should not be baptized, and that Christians ought not to take oath, hold office, or render military service. In short, if you took equal parts of a Hard-shell Baptist and a Quaker you could make a very good Mennonite and at the same time a good citizen, in off years and in time of peace. They had an agreement with the Russian Government under which they tilled the land and paid a reasonable tax, but they were not called upon to take arms. They lived in villages, kept their German costumes and language, reared families, and were prosperous and happy. That troubled the Czar. In 1871 the Russian Government gave notice that ten years from that date all Mennonites would be expected to bear arms, like the Russians. Now the Mennonites had lived in Russia for many years. Many of the men and women were born and raised there. They knew no other land, no other language save that of their forefathers, and they grieved at the thought of leaving the pleasant villages that they had made. They begged the Czar to let them live there as the good Empress had done, but he would not. The land office at Topeka heard of their distress and sent a German agent to see them, and he led eight thousand of them to the promised lands of Kansas. There were heartaches at leaving, lamentations, and tears. Many a Gabriel said good-bye to his Evangeline with little hope of meeting her again upon this sphere. But it had to be. They would not fight, and so they came to

Kansas. The railroad company spent ten thousand dollars building barracks for them to winter in.

The sight of the desolated plains must have broken the hearts and hopes of any but a brave, Christian people, for that was the year when the grasshoppers held up trains and devoured everything but the rails and the right of way. The moment a locomotive on an up grade struck grasshoppers its wheels became oily with the crushed things and it was helpless. It would not only slow down and stop, but the brake shoes often became useless from the same cause, and the train would slip back again to the foot of the hill. All this, however, did not dishearten the Mennonites. They spent the winter in the barracks at Topeka, but by the time that the frost was out of the ground they had selected their homes. Most of them had money, some of them were well to do, and now they built sod houses, bought ploughs, and began "ploughing the dew under."

They were not an attractive-looking people, there in the barracks, wearing sad faces and sheepskin with the wool on. It can not be said of them that they moved in Topeka's best set, but when spring came to gladden again the plague-swept earth they moved out into the country. For the first three years they tried living in communities—in villages—as they had done all their lives, but at the end of that time they gave it up. It was all different in a country where each was to own his land and be his own landlord. They took note of the natives, and the younger ones among them began to imitate the people who dwelt about. In Russia they had been able to keep to their odd ways, but here they could not. It was interesting to watch

them, says Colonel Johnson, especially the young people. Year by year the boot heels of the young men grew higher and narrower, until they finally stood on their toes, like Kansas cowboys. The young women began putting on a ribbon here and there, feathers, black stockings, and store boots. In time farmers could be seen unloading odd bits of furniture and little cottage organs at the door of the neat frame dwellings that had taken the place of the sod houses. The houses at first were nearly all of uniform size and colour, and were built by contract. Sometimes a single contract would call for the building of a hundred houses. A few good crops gave them new hope. They knew by the way the earth responded that this new land was a good land. The railroad company made concessions that amounted in the end to free transportation all the way from Russia for the colonists, their personal effects, wooden wagons and all. In a few years they had fruit trees growing and silkworms working on the young mulberries. They kept their faith, built churches, and thanked the Creator for having shown them the way to so fair a land. They wrote letters back to the old place, urging their friends and neighbours to join them where they could buy land as fair as the best in Russia for three and a half dollars an acre, and hundreds came. Noble L. Prentis, in his Letters from the Southwest, says that in six or seven years fifteen thousand Mennonites had come and settled in Marion, Harvey, McPherson, Butler, and Reno Counties, besides the Catholic German-Russians in Ellis County, on the Kansas Pacific.

This coming of friends from the old country kept

the first comers cheerful. The heart of many a Gabriel was gladdened as he beheld again his lost Evangeline, looking none the worse for the loss of her sheepskin skirt. These Mennonites spoke Russian on demand, but preferred German. They named towns Alexanderwohl, Hoffnungsthal, and Gnadenau. They were the best judges of land, says the land commissioner, that ever came to Kansas. They were extremely industrious, honest, and ever ready to help one another, took care of their own poor, the ill, and the aged, sent missionaries to the Indian Territory, and money to Russia. At the last moment—when the time allowed by the Russian Government in which they were to choose between war and another home had lapsed—a thousand left for America. They had not time to dispose of their crops and other personal property, and so, abandoning all, flew to the land of the free, of which by that time they had heard a great deal. They reached Kansas almost penniless, but not without friends. The land department cut up farms into forty-acre lots for them, the prosperous Mennonites gave them money for the first payment, built houses, bought teams and utensils, and started the newcomers ploughing in the dew. Like the rest, they prospered, paid off their debts, and in a little while had cheerful, comfortable homes. And so, bearing one another's burdens, quietly and without acclaim, they have given the world a beautiful lesson, and strengthened our belief in the old saying that the Lord helps those who help themselves.

To be sure, they have had dry seasons and dark days, but they have been patient, and to-day they form

one of the most prosperous communities in Kansas. Nearly all of them own the land upon which they live, many are well to do, some are rich, and one at least is a millionaire. They are farmers first, but merchants, millers, and bankers as well, and it has all come of being industrious, patient, peaceful, and from ploughing the dew under.

It would be unfair to lead the reader to suppose that all the people lured to the plains by the land department of the Santa Fé have prospered. Hundreds, if not thousands, who settled beyond the rain belt gave up in despair, and returned poorer than ever to the old homestead. In extreme cases the railroad company gave seed wheat to all who would stay and try again, and to those who had not the heart it gave free transportation to the homes that they had left.

. Hundreds of abandoned houses dotted the desert, publishing to all who passed the poverty of the country. Where the buffalo and the Indian had flourished and waxed fat, the white man had starved. One could see from the car window how the home hunter had fretted the earth that had given nothing in return for the costly seed sown, and the lone sod house, silent save for the cry of the west wind that came moaning in through the open window, told its own story.

There was a way—there is a way—to make this desert bloom, but the lone settler had not found it out.

CHAPTER XI.

THE ROAD REACHES THE ROCKIES.

So much time had been lost in securing the necessary capital for the construction of the Santa Fé road that its builders had closely approached the time limit allowed by law long before they reached the State line. If they failed to complete the road within the time fixed by Congress they would lose the large land grant, upon which they had borrowed a great deal of money, and in surveying and mapping which they had squandered much time and labour. Naturally, then, the closing of the construction work was full of rush and excitement. Fortunately the Indians had by that time gone over the Range, with the buffalo and the bad man, so that the road makers had no obstacles of that character to contend with, as did the builders of the Union Pacific. The line was finally finished in time to save the subsidy, and eventually extended across the dry, dead, desert lands, up the Arkansas Valley to Pueblo, Colorado, at the foot of the Rocky Mountains. Although the valley has since been transformed, and is now a garden spot wherever it has been watered, it was a dreary, desolate waste before the coming of the railroad. When the president of the company made

his first trip over the new division, he remarked to the general manager that he saw at least one advantage this line would have over Eastern roads. The company, he said, would not be put to the expense of building side tracks for passing points, for one train a day would handle the business for the next two or three hundred years.

The rails had been pushed so far into the uninhabited West that the management had become convinced that the end of the track ought to rest at the base of the Rockies until there seemed to be some shadow of excuse for extending the line; but even presidents and directors are unable, at times, to interrupt the working out of the manifest destiny of a great enterprise.

At that moment, when the road seemed to want to rest in Colorado, the man already existed who was to push the rails still farther into that sunny, lazy land, the Southwest, which seemed to offer so little in the way of revenue. The then president of the Atchison Company was always fearful lest the rapid building into what seemed to him a resourceless desert would end ultimately in the ruin of the road. He little dreamed that the great calamity that did befall the road in after years would have as one of its chief causes the violation of the company's agreements. He could not have been expected at that time to believe that a day would come when a single man, feeling himself aggrieved at such treatment, would have the audacity and power to parallel a thousand miles of the Santa Fé system in less than three years, and that other lines, in self-defense, would

be forced to do likewise; but that is just what happened.*

President Nickerson was not much of a railroad man, but he was an excellent money-getter. Up to the time of his entanglement with the Gould system he had been able to command money for anything. The East had faith in his judgment, but when the road had been crippled by parallel lines, and was forced to build a number of new lines to keep up with the

* The Missouri Pacific and the Atchison Company had made an agreement to the effect that neither should parallel the other's lines, or come into the immediate territory of the other, to divide the business, then insufficient for the support of a single road. The Gould system kept its pledge. The Santa Fé did not build, but bought the Southern Kansas road in the Gould territory. The management was asked to explain, and General Manager Strong went to see Mr. Gould.

"Will you tell me the difference, in effect, between building a line to compete with the Missouri Pacific and acquiring a line already built?" asked the latter.

"No," said the general manager of the Santa Fé, "I can't; but I have come to fix it up."

"Very well," said the president of the Missouri Pacific, "I'll take half the Southern Kansas at what it cost your company, we'll operate it so as to make it earn something, and stop this senseless competition for business where there is nothing to compete for."

Mr. Strong reported the proposition, but it was not accepted. Now, when riding over the Southern Kansas division of the Santa Fé system, the traveler observes that the engine stops in a field, far away from any station, and whistles, and that this is done many times in a day's travel. These "off-brakes" whistles are for the Missouri Pacific crossings. Between 1885 and the end of 1887 Mr. Gould built 1,071 miles of road in the immediate territory of the Santa Fé, and the Rock Island 1,300 miles, also in Santa Fé territory.

procession, Boston lost confidence in him to some extent, and the financial headquarters of the Santa Fé went to New York.

The story that follows will give the reader a very good idea of the ways of this plain, honest, hard-working millionaire.

Along in the '70s, when the rapidly accumulating wealth of the East was seeking investment in the West, a party of Boston capitalists sent a representative to Kansas to look the field over and advise them. The agent visited the Kansas Pacific Railroad, one of the Pacific roads that had been aided by a land grant and subsidy from the United States Government. He saw the president, told his business, and in the course of time took a ride over the road in the president's special train. The train, the stranger observed, was magnificent. The cars were gorgeously upholstered and had plate-glass windows, the trainmen were beautifully uniformed, and the locomotive striped and belted with bands of brass. If outward appearances were worth anything, this was the richest road he had ever seen. The private car of a division superintendent was better than the conveyance provided by the average New England road for its president. The table in the president's train was better than he had been used to at the best Boston club. The negro servants, arrayed in spotless linen, were dreams in black and white. Wherever the eye of the agent turned it rested upon some evidence of the presence of wealth. As the car followed the sun westward they dined like princes, and cooled their throats and warmed their blood with wine that sparkled, and wine that was of a deep dark red.

Having seen all this, the Boston man said that he would go south a little way and see what they were doing on the old Santa Fé trail.

The Atchison, Topeka and Santa Fé had reached Newton, Kansas, and the reputation of that thriving town had reached Boston. The stranger stopped at Topeka to see President Nickerson, also of Boston, but learned to his disappointment that that gentleman was at the front. With fear in his heart he continued his journey to the end of the track. In the yards he asked for the president's train, and the man, looking him over, said that he had never seen the president's train. He asked another yardman for President Nickerson's car.

"They're all his, I reckon," said the switchman, slapping his hands together three times above his head, which meant "three cars back," for the driver of the yard engine.

The stranger watched the men "slam" cars a while, and then spoke to another man.

"Can you tell me how and where I can find the president of the road?"

"Follow that string o' flats to the dog house," snapped the man, and then darted under a moving car, made a coupling, and nearly lost his life by reason of having taken his eye from his work to answer the stranger.

The Boston man saw that he ought not to bother these men who were dodging death every two and a half minutes for two and a half dollars a day, and moved on toward the end of the long string of flats. About that time a yard engine was coupled on to the

"empties," and began to shove them slowly down the yard. The man walking there did not notice that the train was being moved until the engine, backing up, passed him, and the train of flats was out of reach. Finally the engine stopped, and in time he reached the little red caboose at the end. He had never seen President Nickerson, and, as he pushed the door open cautiously, he was disappointed to find only "a couple of the men" making an evening meal of raw onions, bread and butter, and washing it down with black coffee brewed on the cast-iron stove that stood in the corner of the way-car.

"I was looking for President Nickerson," he said timidly. He had read in the papers that men had perished in Newton for merely mistaking one man for another. Without being in any immediate danger, he was afraid.

"That's him," said the brakeman, jabbing at his *vis-à-vis* with an onion which he had just been dabbing into the partnership salt-heap that lay on a piece of newspaper between the two men.

The Boston man did not appreciate the joke. He was a long way from home. He was not dressed, armed, or equipped as other men about him, and he felt out of place.

"I want to find Mr. Nickerson, gentlemen. I presume you call yourselves gentlemen, and, if so, you will not deny a stranger a little information. I have asked all the yard men I have seen, and none of them has given me any satisfaction; the last was almost uncivil."

"What did he say to you?" asked the silent man at the little desk.

"He said, 'Follow that string of flats to the dog house.'"

The brakeman had his mouth full of black coffee, and the laugh that was in him almost choked him. The other man, wiping his mouth with a piece of the Kansas City Journal, turned, faced the stranger, and informed him that he had at last found Mr. Nickerson.

CHAPTER XII.

THE INVASION OF NEW MEXICO.

THE election of Mr. William B. Strong as vice-president and general manager of the Atchison, Topeka and Santa Fé Railroad Company, the duties of which office he assumed on the 25th of December, 1877, was the signal for renewed activity in extending the lines of the enterprising corporation. Its annual report for that year showed a total mileage of seven hundred and eighty-six miles, being the length of the main line from the Missouri River to Pueblo, Colorado, and of the three or four branches in Kansas then constructed and in operation. Immediately upon his election Mr. Strong was directed by the president of the company, Mr. T. Nickerson, to visit Santa Fé, the capital of New Mexico, to secure from its legislature, then in session, such legislation as would favour the construction of an extension of the line from La Junta, in Colorado, through that territory (looking forward to a further extension to the Pacific coast), and for any aid and encouragement which the Legislature might be disposed to give to the undertaking. A general law for the organization of railroad corporations was then in force, but it was hoped that a special law might be enacted to aid and encourage the immediate

construction of a railroad through the territory. Colonel Nutt, afterward president of the Atlantic and Pacific Railway Company, Mr. Pitkin, Governor of Colorado, and Mr. Miguel Otero, a prominent and influential citizen of New Mexico, accompanied Mr. Strong on the trip, which from Trinidad to Santa Fé was made by stage over the celebrated Santa Fé Trail.

On reaching Santa Fé, it was learned that the Southern Pacific interest had, only a day or two before, secured the passage of a railroad bill, known there as the California Act, which required that a majority of any Board of Directors should be residents of New Mexico, that ten per cent of the estimated cost of construction of the whole projected line should be in the hands of the treasurer before work was begun, together with other obstructions of less importance. This was not what the advocates of the Atchison, Topeka and Santa Fé road wanted, for they knew that the money to build five or six hundred miles of railroad in that remote region could not be raised under such conditions. Every argument was used, and all the persuasive power of the Santa Fé missionaries brought to bear to induce an amendment of the law, but all fruitlessly. The officials took the ground that not a letter of the law should be changed, and stood on that ground obstinately. The Americans who worked in the interest of the Southern Pacific Railroad were firm, as a matter of course, and the natives were opposed to any change whatever in existing conditions. The latter preferred the hauling of every necessary of life by ox teams for hundreds of miles, the cultivation of land with wooden

sticks instead of ploughs, the harvesting of crops by hand, gathering them into bags slung over the shoulder, the dairying with goats, and travelling by burros, to any improvement or change. The prevailing feeling about the projected invasion of Yankee capital managed with Yankee thrift was well shown in an interview between the New Mexican president of the senate and Mr. Otero, himself a native, but an enterprising and progressive one, urging reconsideration of the law. All the talking was done by Mr. Otero, who advanced every argument in favour of the new road, and pictured every increase in the prosperity of the territory that its construction would bring, but without any response whatever from the president, till an hour had elapsed, when he broke out with, "We don't want you d—d Yankees in the country. We can't compete with you; you will drive us all out, and we shall have no home left to us. We won't have you here!"

Fortunately the advocates of the Atchison, Topeka and Santa Fé discovered that by an oversight the new law contained no repeal of the existing one, and no emergency clause; that consequently the old law was still in force, and the new law not yet in effect. Taking advantage of these omissions, they at once proceeded to organize under the old law a corporation called the New Mexico and Southern Pacific Railroad Company, at the same time introducing into the Legislature a little bill of from ten to twenty lines, relieving the new corporation from all the objectionable features of the "California Act," and also from taxation for ten years.

A prominent lawyer, and one of the local editors,

for reasons not far to seek, refused at the last moment to put their names to the papers of incorporation. Others less crafty took their places, and the road, which it had been predicted would be built only on paper, was duly incorporated.

Governor Axtell and Judge Waldo, while not favouring the new bill, had promised not to antagonize it, and the general manager was very well satisfied with the outlook. Two days later the disgruntled lawyer secured the alteration of a word or two in the bill, changing its whole tenor and effect. Thus changed it was passed by the House and sent to the Senate for action. An appeal was made to Judge Waldo, who, while not interested in the bill, conceived that the change savoured of bad faith. He rushed over to the Senate, withdrew the bill, returned it to the House, where he secured its repeal, and then its passage as originally drawn, took it to the Senate, where it was passed immediately, and then carried it to the Governor for his signature. All this was accomplished in the last two hours in the week. It was so unlike the usual deliberate movements of New Mexicans, who have inherited from their forefathers "Mañana" as their rule of action, that it took their breath away, and before they recovered sufficiently to offer further opposition, the bill had been signed by the governor and become a law.

All the way over from Trinidad to Santa Fé Mr. Strong and his companions had fasted. The country seemed to them to afford absolutely nothing fit to put into the unarmored interior of a Christian. Upon arriving at Santa Fé they went into a little shop and

asked the man for something to eat. All they got was soda crackers—biscuits, as the English say—and a few thin cakes of maple sugar, and upon this they made a meal. After three or four days of fasting and fighting with the natives they made a capture. Mr. Strong, watching from the window of his ground-floor room, saw one of his companions dragging a Mexican down the opposite side of the street. The Mexican was making a hard fight for his freight, but the Yankee was yanking him along.

"What on earth do you mean?" demanded Mr. Strong, as he hurried across the street. "If we get in trouble with these natives we'll lose everything. Let the fellow go."

"Never!" said the man with the prize. "He's got eggs."

"No!" said Mr. Strong, glancing about, and without another word he coupled in and helped his friend drag the frightened Mexican across the street. When they had him secure in Mr. Strong's room the general manager went in search of his friend and interpreter, Don Miguel Otero. Pushing Otero into the room the railroad manager ordered him to buy the man's eggs, which he did, and the two pilgrims had a banquet.

On returning from his tour of conquest in the land of procrastination, General Manager Strong met the president of the Atchison Company at Pueblo. Mr. Strong was rejoicing because of his victory over the crafty lawyer, the ambitious editor, and the obstinate natives. "But," said Mr. Nickerson, "we have got no subsidy."

Fancy a New Mexican Legislature voting a subsidy

to a road that they did not want and refused to have!

Mr. Strong was for building at once, but the president saw no reason for building a railroad where a buckboard could earn no money. Barlow and Sander-son had taken off the stage to Santa Fé because the Denver and Rio Grande Railroad Company had refused to guarantee one passenger a day each way, and yet the general manager was eager to build a railroad over the same route.

After much argument, and the assurance that only twenty thousand dollars would be spent immediately, the president gave Mr. Strong permission to begin surveying "in the spring." That was on the 26th of February, 1878.

Slipping out of the president's car, the general manager signalled Mr. A. A. Robinson, his chief engineer. "Go to Raton, take the pass and hold it," he said; and Robinson took the afternoon train for El Moro, in southern Colorado, then a booming town but now a deserted village.

When Mr. Robinson stepped on the train at Pueblo he was met by the chief engineer of the rival company, who was also going south, and, as he surmised, on the same errand—to take possession of the pass for the Denver and Rio Grande Railroad. Fortunately for Mr. Robinson, on arrival at El Moro the Rio Grande engineer, not suspecting the object of his trip, went to bed for the night. Mr. Robinson, however, remained very wide awake, drove over to Trinidad, and passed the night, not in slumber, but in gathering an ample force, which he supplied with tools and arms (the latter being

then as necessary a part of a construction outfit as the former), and the rising sun found him and his men established everywhere throughout the pass. The following morning the Denver and Rio Grande force, refreshed and invigorated by the night's sleep, were marshalled by their leader and marched over to the south side of the mountain to commence work, but found that they were too late, and that the enemy was in possession. High words and loud talk between the leaders ensued, and the representative of the Denver and Rio Grande road, which claimed Colorado, ordered Mr. Robinson and his force out of the country. The reply was brief and convincing: The Atchison, Topeka and Santa Fé men were there, and in possession; they were armed, and they were going to stay. If attacked, they would defend themselves, and the responsibility for results would rest with the attacking party. The Atchison, Topeka and Santa Fé men did stay.

Construction went on without interruption, and the road was completed to Trinidad, eighty-one miles from the main line at La Junta, in six months after Mr. Robinson had taken possession of the pass. The track crept rapidly southward, and it was but a few weeks later that it reached the almost illimitable coal deposits south of that city. During the cutting of the Ling tunnel near the summit of the mountain a switchback line at a grade of three hundred and seventeen feet to the mile was operated without accident. The first passenger car entering New Mexico went over it on the 7th of the following December, 1878.

The lawyer and the editor who would not allow their names to be used in connection with the "paper

railroad" rode over its tracks into Santa Fé on the 16th of February, 1880. The road reached Albuquerque, the connection with the already projected Atlantic and Pacific to the Pacific coast, in April, 1880, Deming on the 1st of March, and El Paso, Texas, on the 1st of July, 1881, completing the whole of the projected five hundred and sixty miles in three and one third years. Two years later the Atlantic and Pacific Railway was completed from Albuquerque westward, making with the Atchison, Topeka and Santa Fé another through line to the Pacific coast.

To the amazement of President Nickerson, this road, built over an abandoned stage line, paid expenses from the day it crossed the mountains and entered the territory of New Mexico. The history of any Western road will prove that a railroad will make business where there is none existing.

Among the well-known characters in southern Colorado at this time was Richard Wooten, more familiarly and generally known throughout the region as "Uncle Dick." He was among the first white men to settle there, going out some time in the early '30s, and was probably at this time well beyond the three-score and ten years allotted to man, but hale and strong, and followed around his ranch by his youngest offspring, then about three years old. He was a firm friend and a bitter enemy, and had for some reason taken a deep dislike to the Rio Grande crowd; consequently he was ever ready to do all in his power to thwart their plans and to forward those of the Santa Fé. He owned and ran for many years an adobe hotel halfway up the Raton Mountain, and also owned and

operated a toll road over the range. This was a part of the old Santa Fé trail, and over it passed all travel between that section and New Mexico, and all the supplies and merchandise sent to that territory from the East. The road had long been a source of large revenue to him, and the construction of the railroad destroyed both his business and his road, much of the latter going into the grade of the railroad; but in spite of that his friendship for the company and his interest in its success remained unabated. As an evidence of the regard felt for him by the railroad officials, the great mountain engine, then the heaviest and most powerful one ever built, was named "Uncle Dick," and under that name has worked ever since up and down the heavy grades of the mountain. It has kept the name to the present day, though every other engine on the line is now known by a number, like a criminal condemned to hard labour for life.

In late years, when he was very old, misfortune found Uncle Dick, and took from him both property and sight; but it is pleasant to know that the company, contrary to tradition, did not forget his early friendship, but provided for his needs and made him comfortable till his death, only a few years ago.

CHAPTER XIII.

THE GRAND CAÑON WAR.

BECAUSE the same conditions can never exist again, there will probably never be another railroad war in this country to compare with the battle between the Denver and Rio Grande Railroad and the Atchison, Topeka and Santa Fé Company for the possession of the Grand Cañon of the Arkansas—the Royal Gorge. To be sure, this war was only an incident in the making of the railroad, and was not taken into consideration by the projectors of either of the roads that afterwards became so actively interested; but it did take place, has gone into the history of the West, and is therefore a part of the story of the railroad. There is no evidence that either company contemplated the building of a line through the Grand Cañon of the Arkansas until the mineral resources of Colorado began to attract the attention of the mining world.

The discovery and development of the silver mines in and about Leadville, and the consequent increasing business between that region and the East, determined the Atchison, Topeka and Santa Fé Company to extend its road to that city. The rates on freight were a deciding temptation to this expenditure, being four cents per pound by team from Cañon City to Leadville,

a distance of one hundred and twenty miles, amounting to a little more than the charges from New York to Cañon City, a distance of over two thousand miles. The Denver and Rio Grande Company woke up to the importance of this connection at about the same time, and decided to push its rails from Cañon City into the great mining region. As there was but one available route through the mountains, the cañon cut by the Arkansas River in its wild dash from the summit of the Rockies down to the Kansas prairies, it was a matter of importance to each of the contestants to secure its possession. There are cañons and cañons, some barely the width of a railroad track, and some broad enough for the traffic of a country, but the cañon of the Arkansas for twelve miles west of Cañon City was of the first character, especially through the Royal Gorge, where for miles the rocks rise thirty-five hundred feet, making an absolutely perpendicular wall on either side of a river which finds less than fifty feet for a passage at their base. Consequently the possession of this pass was a condition of success, and to hold it was the object of the struggle now begun.

No move was made for some time by either party to take actual possession of the cañon, until on the 17th of April, 1878, Mr. Strong, concluding that longer delay would prejudice the plans of his company, if not render their accomplishment impossible, directed Mr. A. A. Robinson, chief engineer, to take immediate action. The Atchison, Topeka and Santa Fé was then building from La Junta, on its main line, southerly through Colorado, and over the Raton Mountain, as already described, into New Mexico, on its way to the

Pacific coast, then many hundred miles distant. The nearest engineering station was at Deep Rock, a point on the new line some fifty miles south of Rocky Ford on the main line, its nearest railroad or telegraph point. A messenger was dispatched on horseback from Rocky Ford, bearing to the engineer in charge at Deep Rock the order to leave whatever work he had on hand and go direct to Cañon City, with men enough to take possession of the cañon and hold it, and to do this without a moment's delay. W. R. Morley, the engineer in charge of construction at El Moro, in Colorado, was sent to relieve the Deep Rock engineer, but, upon reaching Rocky Ford, found that the other man had failed to receive, or at all events to carry out, his instructions.

Not a great deal had been said to Mr. Morley. His instructions were to go to Deep Rock, and the cañon had been discussed only incidentally, but he instinctively comprehended the situation and turned westward. He asked for an engine to take him back to Pueblo, reaching that place late in the evening of April 18th.* Here he learned that a large force of Denver and Rio Grande men, with a complete construction outfit, had gone west by the night train, under orders to take possession of the cañon on the following morning. If he could reach Cañon City, where the people were in sympathy with the Santa Fé, as they were at Trinidad and other small places that the Rio Grande had ignored, establishing new ones, he could

* These dates are important only to those who care to follow the legal arguments and decisions of the courts based upon the dates of possession of the cañon.

raise a force sufficient to hold the cañon against General Palmer's men. But Cañon City was forty miles away, and the Rio Grande was the only line that reached there. It was striking midnight in the dance hall. There was a livery stable close by. Fifteen minutes later Morley was leaning forward in the seat of a stout mountain buckboard, behind the best team that could be had in Pueblo, uncertain whether his trip would end at his wished-for destination, or under the torrent of the Arkansas River, by the bank of which his rough road lay. He did not spare the horses nor carefully pick his way. Not knowing that they were being pursued, the Rio Grande force would probably use the night in making the run, for the road was new and rough, and the load heavy for the little six-wheeled locomotive. Where the river appeared to indulge in unnecessary curves, he cut them and plunged into the stream. Occasionally a coyote or mountain lion would hurry from the trail as the reckless driver dashed along. When day dawned his horses were white with foam, but still he urged them on.

As the sun rose above Pike's Peak and spattered its glory against the Greenhorn range, the plucky driver was still pushing on for the front. Somewhere in the curves of the broad valley he must have passed the other outfit. At times he fancied that he could hear the sharp screams of the little locomotive rounding the countless curves, turning in and out like a squealing pig following the worm of a rail fence. For the first time it seemed to him that his horses began to fail. Their feet were heavy, they stumbled and fell to their knees, but, responding to the touch of the whip, got to

their feet and galloped on. The new energy put into them by a vigorous use of the lash was short-lived, like the effect of champagne, and again the bronchos showed unmistakable signs of exhaustion. There were the adobe houses of Cañon City. They seemed in the clear morning atmosphere within a stone's throw, but in reality they were three miles away. Now the wild scream of the little locomotive broke the stillness of the narrow vale, and went wailing and crying in the crags up the cañon. A moment later Morley entered the town, side by side with the wheezy little engine and its train of twenty tri-penny cars behind it, which ran up to the station all unconscious that it had run a race of forty miles against a man and a team, and had lost the race.

Passing unrecognised by the crowd, Morley reached the office of the president of the local company (the Cañon City and San Juan Railroad Company), under whose charter the Santa Fé was operating in Colorado, and demanded from him authority to occupy the pass on behalf of his railroad. While the papers were being made out, he saw two Denver and Rio Grande contractors approaching the office. Passing out by the back door, Morley saw a shovel branded "D. & R. G." leaning lazily against a post to which a saddle horse was tied. Securing the shovel, he cut the reins and rode like the wind for the cañon, still two miles beyond the town, determined to hold it against all comers. No one was there to oppose his entrance; the other crowd, knowing nothing of the race nor of his presence, and not anticipating any opposition, were moving as leisurely as an army through a subjugated coun-

try. But Morley was there with his shovel, commencing the work of building the railroad. One shovelful of dirt over his shoulder or twenty—what matter? The construction of the Cañon City and San Juan Railroad was begun.

President Clelland, not being able to recruit many assistants at so early an hour, followed Mr. Morley in a few minutes with only half a dozen friends, but all bearing the arguments which were then most respected in that country. They had hardly reached the cañon when the Denver and Rio Grande forces, two hundred strong, appeared at the entrance. Laughing at the little force which barred the pass, and not suspecting who was the leader, they ordered them out of the way at the peril of their lives. Mr. Morley stepped to the front, and quietly responded that he was there as the representative of the Cañon City and San Juan Railroad, that he had taken possession of the cañon in the name and behalf of that company, that work of construction was already begun, and that, having taken possession and begun work, he would hold the cañon against any and all opposition that offered. Any attempt to force him out would be met by his revolver and the arms of his friends, and their blood would be on the heads of those who attempted to drive them out.

From another man, backed by so small a force, these heroics would have inspired but little respect, but these men knew Morley. They knew also that if they had been first in the field, they would have made use of the same weapons and arguments as he was now using. So they left him and his small army in pos-

session, moved farther westward, and took an uncontested stand some miles farther up the cañon. Thus commenced the struggle carried on with violence and bloodshed, lawsuits and injunctions, writs and counterwrits without number—an internecine war, which raged during the next two years with only brief intervals of peace.

Morley, the engineer who had been bold enough to disregard orders, take matters in his own hands, and to capture and hold the pass, now became the hero of the Santa Fé. Mr. Strong, then general manager and afterward president of the Atchison, Topeka and Santa Fé, gave the daring engineer a gold-mounted rifle as a slight token of his appreciation of what he had done.

A braver man than Morley never located a line. He was full of the fire that burns in the breast of the truly heroic. No knight ever battled for his king with a more loyal heart or with less fear than Morley fought for his chief.

To be sure, neither General Palmer, president of the Rio Grande, nor Mr. Strong believed for a moment that this great controversy could ever be permanently settled by violent means, and after the first brush, in which the Rio Grande got the worst of it, they turned to the courts.

Although the arming and marching of a body of men across the country was in open violation of the laws of the State, nobody paid any attention to that matter. They were simply playing for position. None of the men engaged in the warlike demonstration was censured by the railroad officers. On the contrary,

they were applauded and in some cases rewarded for their loyalty.

The many legal battles fought out in the courts were as interesting, if not as exciting, as the unlawful contests that were going on in the cañon. The millions of money involved, the splendid array of legal talent, and the fevered excitement of the people, made it the greatest case ever tried in the courts of Colorado.

At this juncture a great misfortune overtook the Rio Grande—one that caused the failure of many a deserving enterprise and many a worthy man. They were without money, and were forced, through poverty, to compromise.

In the last hour, if not at the last minute, of the 13th day of December, 1878, General Palmer, as the executive officer of the Denver and Rio Grande, leased and transferred to the Santa Fé Company the three hundred or four hundred miles of narrow-gauge road then owned and operated by his company. The Santa Fé was regarded as a Kansas line, while the Rio Grande was purely a Colorado road. The former, having Kansas City as its starting point, was interested in building up the wholesale and jobbing trade, and in making Kansas City the base of supplies and general distributing point for the growing West.

The owners of the Denver and Rio Grande, as well as the people of northern Colorado, were not long in discovering the plans of the Santa Fé, and the former at once set about to find an excuse for breaking the lease.

What is now the main line of the Rio Grande was then completed to Cañon City, and as the Santa Fé



Holding the cañon.

people had a line of their own to the coal fields a few miles below the cañon, they renewed the fight for a sure and permanent outlet through this valuable and only passable pass to Leadville and the Pacific. Being in possession of the constructed line, they began the work of paralleling the Rio Grande by grading a way on the opposite side of the river. This old grade can still be seen from the car windows all the way from the mouth of the cañon to the Royal Gorge.

In March, 1879, the Santa Fé reopened the fight by demanding that it be allowed to examine the books kept in Palmer's office, which the latter refused. With the coming of spring the rival companies resumed their arms, and, after the fashion of hostile Indians, went on the warpath again. Armed forces occupied the cañon and built forts like cliff-dwellers, at the top of the walls. The Rio Grande people were exasperated—almost desperate. The fact that Rio Grande bonds had gone up since the lease from forty-five to ninety cents, and that stock that was worthless was selling at sixteen cents, did not appease the Palmerites. The Santa Fé had shut them out at the south, crossed Raton Pass, and gone on to the Pacific. They were preparing systematically to ruin the Rio Grande by building into all her territory, even to Colorado Springs, Leadville, and Denver. General-Manager Dodge declared that the terms of the lease had been broken by the Santa Fé before the ink was dry upon the paper. General Palmer openly asserted that the Santa Fé had mismanaged the road and diverted traffic, and that it was endeavouring to wreck the property. Mr. Strong claimed, on the other hand, that the books

of the Rio Grande had been spirited away by the treasurer, and that he had a right to see them.

On the 21st of April the Supreme Court rendered a decision, giving the Rio Grande the prior right of way through the cañon, but not the exclusive right. It was finally determined upon this occasion that no company of railroad builders could pre-empt, occupy, and hold against all comers the narrow passes or gorges in the mountains.

The Rio Grande people were able to persuade the Supreme Court at Washington that they had located in the cañon just one day ahead of their rival. Hall's history of Colorado leaves this impression in the reader's mind. The Historian was probably following the Supreme Court, which in this case seems to have been in error. It has been said that Judge Harlan saw his mistake after it had been made, but, like the driver of a new locomotive, the Supreme Court dislikes to reverse—it is hard on the machinery.

The Denver and Rio Grande Company had in its favour a special act of Congress, enacted in 1872, granting it right of way through the public lands. In 1871, and also in 1872, it had made some surveys through the Grand Cañon, but of a purely preliminary character. The decision of the Supreme Court of the United States in the case of the Denver and Rio Grande Company against the Cañon City and San Juan Company, as delivered by Justice Harlan, was to the effect that this special act of 1872 gave it a present right through the cañon, capable of enjoyment, though, only when the right of way should actually and in good faith be appropriated; and he held

further that this appropriation was accomplished on the night of April 19, 1878—that is to say, he dated the actual occupancy of the Denver and Rio Grande Company from the night of April 19, 1878, and stated that evidence of the Atchison Company's activity in that direction was found in the fact that on the morning of the 20th—as early as four o'clock—some of its employees, nine or ten in number, in charge of an assistant engineer, swam the Arkansas River and took possession of the cañon for the Santa Fé. He further decided that the surveys of the Rio Grande Company, made in 1871 and 1872, although very defective and not equivalent to an actual location, were quite as complete and extended as the survey which the Cañon City Company had made in 1877.* A dissenting opinion was filed by Chief-Justice Waite, in which he declared that the Atchison Company had made the first permanent location through the cañon with a view to actual construction.

Shortly after this decision had been announced by Judge Harlan, one of the Santa Fé attorneys wrote to him and called his attention to the fact that the evidence failed entirely to support his view of the events that transpired on the night of April 19th and the morning of April 20th. Justice Harlan wrote him in reply to the effect that the important considerations in his mind were the grant to the Denver and Rio Grande Company in 1872, the early surveys that Company had made, and the period of financial depression that

* The opinion of Judge Harlan is found in 99 U. S. Reports, p. 463.

had delayed the construction for the years intervening between that time and 1878.

The peculiar features of this litigation are, that when the case was decided in the Supreme Court of the United States the Santa Fé people were in control of the Denver and Rio Grande Company, and held practically all its capital stock, and that the Supreme Court in its opinion left the matter to be determined in supplemental proceedings whether the trade made with the Rio Grande Company, by which the Santa Fé acquired control of it, was intended to put an end to the litigation over the cañon. In the negotiations between General Palmer and President Nickerson nothing had been said in express terms about this. Each seems to have carefully avoided touching on the subject, and in all the papers by which the Atchison Company acquired the stock of the Rio Grande Company and a lease of the road, etc., there was not a word which threw any light on the question of the discontinuance of the litigation over the cañon.

The Rio Grande was at last victorious, but the road was still in the hands of the enemy, and would remain there for thirty years unless the Supreme Court would set aside the lease.

The matter of cancelling the lease now came before the courts. This was urged by the Rio Grande, backed by the best legal talent that money could secure. Meanwhile the two armies in the mountains were being increased and the forts enlarged. In the midst of all the excitement, Attorney-General Wright added to the confusion by entering suit to enjoin the Santa Fé Company from operating railroads in Colorado. The

hearing was had before Judge Bowen, afterward senator from Colorado, across the Sangre de Christo, in the little town of Alamosa. Willard Teller, for the Santa Fé, promptly applied for a change of venue, alleging, in language that could not be misunderstood, that the judge was prejudiced against his clients, and that he could not hope to get justice in such a court. It was not to be supposed that a man who played poker, as Judge Bowen did, would lie down at Mr. Teller's first fire. He led off with a spirited rejoinder to the attorney's attack, and ended by issuing a writ enjoining the Santa Fé and all its officers, agents, and employees from operating the Rio Grande road or any part thereof, and from exercising in any manner corporate rights in the State of Colorado. In short, he turned the road over to the owners.

Mr. Teller commanded the conductor of one of the trains then lying at the terminus of the track to "hitch up" and take him to Denver with all possible speed. The employees had, of course, watched all the lawful and unlawful contests as closely as the higher officers, and were ready to take sides with their former employers; and so the conductor, who had heard Judge Bowen's decision, refused to leave before schedule time. This conductor secured a copy of the writ, and, fearing a hold-up *en route*, placed it in his boot and pulled out for Denver.

At Palmer Lake, when within fifty-two miles of Denver, this enterprising conductor gave additional evidence of his loyalty to Messrs. Dodge and Palmer by slipping out and disabling the locomotive. He removed one of the main rods (they were not so heavy

then as they are now) and threw it into the lake. He must have done more, for that, unless he had "seen" the engineer, would not prevent the engine, still having one side connected, from taking the train in. After crippling the engine, the conductor boarded a push-car (hand car without handles), stood up, spread out his rain coat to make a sail, and was pushed by the west wind down the long slope into Denver, while Attorney Teller sat in the delayed train at the summit and swore.

It would seem that the Rio Grande was not content with all the advantage it held in the courts, but was still increasing its armed force in the Grand Cañon, where J. R. Deremer, one of the engineers, blocked the trail with a force of fifty men.

"By what authority," demanded the Santa Fé men, looking into the fifty rifles, "do you hold this pass?"

"By the authority of the Supreme Court and the fifty men behind me," was Deremer's reply.

The action of the regular officers and employees of the two roads was prompted by a sense of loyalty to their respective employers, but the common herd which took service did so simply for the pay of five dollars a day, and had no higher interest in the contest. Sometimes the camps of the opposing armies were close together; sometimes the officers and men met, mingled and mixed toddy under the same cedar.

If President Strong or the Santa Fé had realized the seriousness of the situation, or, it were better to say, if he had been less considerate and humane, he might, by weeding out the old Rio Grande agents and employees and replacing them with men in sympathy

with his company, have put himself in a stronger position for what was to follow; but, to his credit, he allowed the old men, whose only offense to the new *régime* was their loyalty to the old, to remain. Although the Santa Fé people appear to have paid no heed to the attitude of the employees along the leased line, the Denver and Rio Grande people did, and upon the loyalty of their old men they risked everything.

The Santa Fé managers, however, were not idle. They had, located on the main line, a camp called Dodge City, as rough a community as ever flourished under any flag. From these rich recruiting grounds they imported into Colorado a string of slaughterers headed by "Bat" Masterson, whose hands were red with the blood of no less than a score of his fellow-men. In justice to Masterson, the explanation should be made here that he did most of this work in daylight, with the badge of a "city marshal" upon his unprotected breast, and that a good majority of these men deserved killing, but had been neglected by more timid officers of the law, wholly on account of their toughness, their familiarity with firearms, and an overweening fondness for the taking off of city marshals.

There was not a man on either side who would not argue that his company was wholly in the right, "and," he would add, resting his rifle in the hollow of his left arm, "proceeding within the law." For example: A big Irishman in a red shirt was heard to say, "I'm a law-abidin' man, an' I believe in lettin' the law have its course at all times; only in this case I know the Rio Grande's right, an', begorry, I'll fight for 'em."

Judge Bowen's decision caused the greatest con-

fusion. By it he directed the sheriffs of the several counties to take possession of the Rio Grande property, and they began to serve writs upon the officers and agents along the line.

On the night of June 10, 1879, President Palmer tapped the wires on either side of the station at Colorado Springs, made a loop through his residence, and sat all night listening to the messages sent over the line by the Santa Fé. General Dodge, Mr. Palmer's general manager, had established a line of mounted couriers, with stations every twenty miles over the entire road, for they must not attempt to use the telegraph. By these couriers they hoped to be able to run trains until such time as they could get possession of the telegraph offices.

They were reasonably sure that Judge Hallett would reverse Judge Bowen on the 11th, and so the order went forth to Palmer's people and to the sheriffs along the line to swoop down upon the enemy at 6 A. M. and capture the road. Accordingly, on the morning of the 11th a posse, under a sheriff, armed with a Bowen injunction, marched upon the station at East Denver and captured it.

At West Denver the station was found locked, but the door was forced and an operator installed at the key. To and from along the line the mounted couriers were galloping with messages from General Palmer or Colonel Dodge. Up from the south came ex-Governor A. C. Hunt, another Rio Grande general, with a formidable army that swept everything before it as effectually as did the army of Sherman in its march to the sea. The Santa Fé people, as soon as they learned

what was going on, concentrated their forces at Pueblo. That important point they had determined to hold. Bat Masterson, with his imported slayers, was in possession of the stone round-house, and all Rio Grande men steered clear of it. The Santa Fé people had for forty-eight hours been urging Governor Pitkin to call out the State troops, but the Governor said that he could not do so unless there was some demonstration of unlawful force, and even then the sheriffs must first exhaust all means in their power to preserve the peace before he could act.

When the fight was once on, it was found that the Rio Grande men were in need of restraint instead of encouragement. Santa Fé employees were pulled from their cabs and beaten into a state of obedience to the commands of the Rio Grande officers. Santa Fé sympathizers fought as fiercely, only they appeared to be in the minority at all points. Under the direction of General-Manager Dodge a train was made up at Denver to start south. Manager Kramer, of the Adams Express Company, hung his messenger about with six-shooters and locked him up in the car. Colonel Dodge said that the Rio Grande Company would run the express business from now on, but, to avoid delay, allowed the Adams car to remain in the train. President Strong, with his horses at a dead run, drove from his hotel to the station, where Colonel Dodge was making up the train, and all the people of the town who were awake ran after him, expecting that upon his arrival at the station the shooting would surely begin. Probably at no time in their lives, before nor since, have these two officers known such a trying



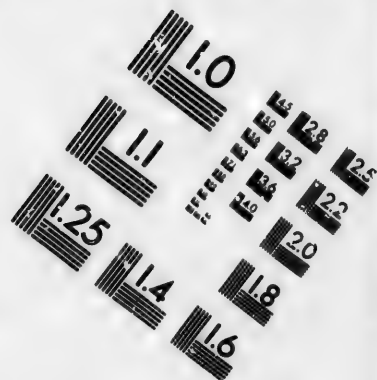
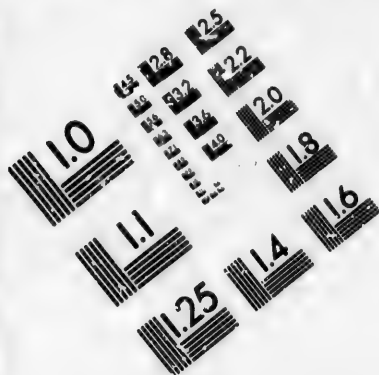
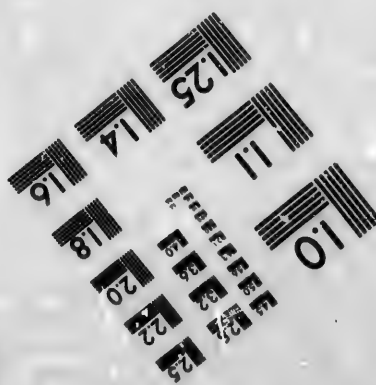
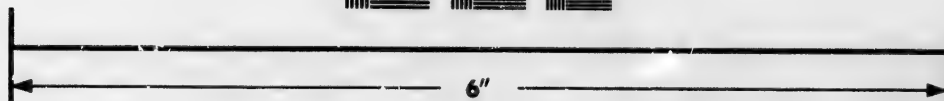
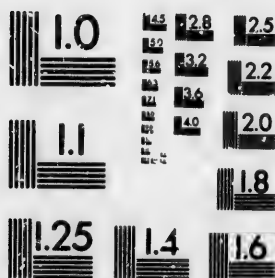


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moment, but they were too wise to begin themselves a battle which they knew they could not stop. Finding Mr. Dodge in possession of everything in sight, Mr. Strong made a rush for the court.

The greatest excitement prevailed among the employees all along the line. Operators at small stations knew not what course to take. At some of the stations the agents were with the Santa Fé, and these made it impossible for the Rio Grande to use the wire for handling their trains.

We have seen by the character and voting place of the men employed by the Santa Fé that Mr. Strong was desperately in earnest. To show that General Palmer was making a great effort to avoid mistakes, I will quote from a letter lately received from a prominent railroad officer who was in the fight:

"With the exception of about half a dozen employees, the men were all in sympathy with General Palmer, and desired that he be successful in his efforts to regain possession of the road; and as each train passed Colorado Springs, up to midnight, June the 10th, as the trainmen applied at the Rio Grande headquarters, which were then located at Colorado Springs, they were supplied with whatever they thought would be necessary to be used in defending their trains the next day, it having been previously arranged that possession would be taken at six o'clock on the following morning."

It is safe to assume that they asked for all they wanted, and got all they asked for.

By the time the first train pulled out of Denver the whole State was swarming with armed men. But

from a single county, Pueblo, came the cry of a sheriff who had been unable to serve the Bowen writ and dislodge the Santa Fé. There Masterson held not only the round-house, but the station and offices. The Rio Grande forces at Pueblo were under Chief-Engineer McMurtrie and R. F. Weitbrec, treasurer of the company.

Some of the Rio Grande men conceived the idea of stealing a cannon from the militia, with which they might batter down the round-house and capture the killers therein, but found at the last moment that the cannon had already been stolen by the gentlemen on the other side. It was even asserted that it was within the round-house walls, and the Rio Grande people moved yet a little space away.

Mr. Weitbrec, it would appear, held the belief that a man who could be hired by an entire stranger to go out and slay people for a few dollars a day could be seen, and so went over to the round-house to see Masterson.

When they had spoken softly together for a spell, Bat called his captain. The latter presently went to the lieutenant, who was standing at the other end of the house where the men were massed, and said:

"Say, you fellers, drop yer heavy guns, keep yer light ones, an' slide."

"What?" said the lieutenant.

"You're to lay down—'is nibs 'as seen Bat."

"Well," said the lieutenant, "'spose 'e have seen Bat, where do we come in? What's in the pot? Ye kin tell Mr. Bat we'll not quit till we see some dough."

The captain reported to Bat, and returning to the

lieutenant, who stood surrounded by his faithful soldiers, said:

"Bat says the gentleman 'as seen 'im, an' if you gent's don't come off at wonet he'll have to come over personally. Th' gen'l'man 'as seen 'im—see?" and with that the captain shot a spray of tobacco juice into an engine pit ten feet from where he stood, and strode away.

The army laid down their arms, for Mr. Weitbrec had seen Bat.

The surrounding of the round-house, however, did not mean the giving over of the whole town, and the Santa Fé men still held the dispatcher's office.

In the meantime Colonel Dodge's train was coming down from the north, and Governor Hunt was coming up from the south. The excitement was hourly increasing. Wherever the Santa Fé men refused to open up, the doors were smashed and the Rio Grande men, usually headed by a sheriff, took possession.

When the train reached Pueblo the express car was broken into, the Adams express matter dumped upon the platform, and Mr. Kramer's messenger, loaded down like a Christmas tree in a mining camp, where the favourite gift is a six-shooter, dumped on top of his freight.

"The excitement throughout the State was unparalleled. Telegrams poured over the wire to the Governor's office. One from the sheriff of Pueblo County was to the effect that an armed mob had seized the Denver and Rio Grande property there and resisted his efforts to dislodge them. He had exhausted all peaceable means to that end, and felt that he must

resort to force, but asked for instructions. The Governor responded that he must act within the strict commands of the court. It was not for him (Pitkin) to construe the legal effect of writs in the hands of sheriffs; they must act upon their own responsibility. Thrown upon his own resources, later in the day the sheriff, with a large posse, forced the door of the dispatcher's office. A number of shots were fired, but no one was injured. About dark the same evening ex-Governor Hunt, that whirlwind of energy and indiscretion, arrived on the scene from the south with a force of two hundred men. They had captured all the small stations along the line, bringing the agents away with them on a captured train. It was stated that two of the Santa Fé men had been killed and a like number wounded. At Pueblo all was excitement and confusion, where Hunt swept everything before him." *

Having placed the property at Pueblo in the hands of Rio Grande employees, Governor Hunt cleared the Arkansas Valley up to the end of the track at Cañon City, and when he had finished there the Denver and Rio Grande Railway was in the hands of its owners.

We often hear of a railroad train being held up—sometimes by a single man—but this is probably the only instance where an entire railroad has been captured at the end of a gun, or a few hundred guns.

When the sun rose on the 12th of June, it shone on General Palmer in all his glory, running every department of the road, but the end was not yet. Judge Hallett promptly declared Judge Bowen's decision null

* Hall's History of Colorado.

and void. Judge Bowen rallied, and two days later issued a decree placing the road in the hands of a receiver. Again the Santa Fé went to the Federal Court. In the meantime rumours of riot and bloodshed came up from all along the line. At Pueblo the Rio Grande men had erected heavy fortifications all about the station, while up in the cañon Deremer had his army entrenched and supplied, and saw that no work was done by the opposing company.

Judge Hallett, Judge Miller concurring, now ordered all property unlawfully taken to be restored to the Santa Fé, after which the Rio Grande might institute proceedings for the cancellation of the lease. Three days were given for the complete restoration of the property to the lessees.

The Santa Fé now asked that the receiver be discharged, which, after elaborate arguments, was done. The Rio Grande promptly restored the road to the lessees, and asked for an order restraining the Santa Fé from operating it. This order was issued, a new receiver appointed, and the road restored to its owners.

Jay Gould, who had vainly tried a number of times to settle the strife, now secured a controlling interest in the Denver and Rio Grande, after which the war came to an end.*

Looking back over the twenty summers that have

* President Strong relates that Jay Gould made a proposition to him at the Windsor Hotel at Denver for the settlement of the war. It was so equitable, so fair to the Atchison Company, that he could not believe it. He asked Mr. Gould to write it out, and finally requested him to read it aloud, which Mr. Gould did. Mr. Strong then wired it to Boston, but got no reply.

slipped away since the excitement in the cañon, as the receding miles slip out from under a sleeper, one is apt to say that the end of it all was a good ending. Many of the men who took part in the war are still here to criticise this tame picture of those stirring scenes.

CHAPTER XIV.

INCIDENTS OF THE EARLY DAYS.

MANY really laughable things happened in the making of the railroads of the West. Men often took advantage of the miles that lay between civilization and the last stake, and settled differences as best they could to save the time and expense of going to court. Then, often, a man, or the company he represented, would have a hard case that would not stand the airing that it was sure to get at the hands of a cross-examiner. Perhaps rival roads were reaching for a certain pass the possession of which was as good as a deed. In that case the chief, or locating engineer, of each set about to beat the other. In this way alone, in more than one instance, the history of railroads—even of vast sections of the West—has been greatly affected. A line projected and planned to be built in a certain direction was often headed off by a smart rival and forced to nose along the ribs of the Rockies for another outlet.

The president's private car, when the road was completed, often carried him into a country altogether different from the route originally mapped out. There was never any doubt as to the loyalty of a locating engineer. So far as the writer knows, no

attempt to bribe these fearless pathfinders was ever made. The treasurer of one line could always do business with the lawless thugs armed and employed by its rival to hold a pass or a cañon, but never with the real men of the West. In the early days it was a common and regarded as a perfectly fair thing to ditch a train carrying records, attorneys, or officials of a rival road. To be sure, care was always taken to do as little damage as possible, and not to endanger the lives of those on board, the main object being to delay the train. During the Grand Cañon war, the acting general manager of the Santa Fé once had his special ditched five times on a single run of one hundred and twenty miles from Pueblo to Denver. Finally, when they could keep him out of the town in no other way, the dispatcher put the special on a spur with orders to "meet extra west" at that station; but the extra never came, and after hours of waiting the special flagged to the next telegraph station and asked for orders.

Conductors have been known to disable the engine of their own train, and engine drivers have been taken suddenly and violently ill on the road. Upon one occasion the resourceful engineer of a special bearing a sheriff and his posse out to suppress a lot of strikers had a fit in the cab. The attack was so violent that he did not recover until he heard one of the deputies announce that he was a locomotive engineer from the Reading, and could "run the mill in." Then the driver slowly recovered.

At the next stop, having filled the feed pipes, through which the water passes from the tank to the engine, with soap, he announced to his fireman that he

was about to "throw another fit." This time he did not recover. The smart runner took the throttle, the fireman having confessed his inability to run, and in a little while had the boiler as full of lather as a barber's mug, and about as useful for steaming purposes. The train hung up on the first heavy grade, and had to wait until the engineer came round again.

To get the clerk of a county or district court on board a train with the court's seal was considered a smart piece of work.

The same official referred to here as having had his car ditched five times on a single trip, was in Pueblo one day when A. A. Robinson, chief engineer of the Santa Fé, came to ask a favour.

"Mr. Blank," said Mr. Robinson, "I've got the clerk of the district court at Alamosa here. I want to give him to you. He has the seal with him, and I should like to have him in Kansas, or out of Colorado at least, by daylight to-morrow morning."

"But I'm not going to Kansas," said the official.

"I understand," said the chief engineer, "but I thought you might take a run out that way as a personal favour, and at the same time to rid this growing young State of so disreputable an official as the clerk of this district court seems to be."

"He has stolen the seal of the court, eh?"

"Yes."

"And you want me to steal him?"

"Exactly. You've got the only engine the company owns here that is fit for the road, so I've been driven by circumstances to ask this favour."

"Where is this thief that I am supposed to want to steal?"

"In your private car, sir. I heard him ask the porter to put him to bed at once, so he's probably asleep by this time."

"How am I to handle him? Is he to eat at the first table and smoke my cigars?"

"He's not to eat at all. I shall tell the conductor to put him off at Coolidge, and in that way save you the embarrassment of an uninteresting acquaintance."

"Thank you, Robinson. You are very thoughtful. You may order the engine, if you will, while I break the news to Mrs. Blank. She has had her hair crimped for Manitou."

While Mr. Blank explained the situation to Mrs. Blank, the engine backed up and coupled on. The conductor came bounding from the dispatcher's office with two copies of the running orders, and they were about to pull out when Mr. Blank came from the car.

"You don't mind a little shaking up, do you?" asked Robinson.

"Not in the least," said Mr. Blank, indifferently. "I can ride as fast as he can run."

The driver heard that, and he made up his mind to take it out of the man with the special. They were in the act of pulling out when a couple of men came walking rapidly from the telegraph office.

"Where's this train goin' to?" demanded one of the men.

When neither Robinson nor the conductor answered, Mr. Blank informed the man that the train was going to Topeka.

"Good 'nough," said the stranger; "I'll just take a run down to Topeka m'self—will you jine me, Bill?"

"This train doesn't carry passengers," said the conductor, slipping between the two men and the steps leading up to the rear platform of the car. Mr. Blank had paused upon the second step. "This is a private car," he said, "and we can't accommodate you."

The two men with broad hats and heavy firearms drew near. Robinson and the conductor stepped between them and the car.

"You've got one passenger," said the man who had spoken for the would-be voyagers, "and I guess you can take a couple more."

"Keep back!" said Mr. Blank, raising a good-sized boot and swinging it threateningly near the face of one of the strangers.

"Looka here," said the man, showing his temper, "I'm a deputy sheriff. You've got the clerk of the district court in that car, an' I want him, see?"

"No, I don't see. I have not seen the clerk of any court, and don't want to. This car is my home, and you can't come in here. Do *you* see?"

Now the car began to move off. The brakeman and porter came out on the platform, the conductor got aboard, and Robinson stood on the last step. Five men on the rear platform of a special car, fenced about with iron railing, make it difficult for unwelcome visitors to mount. The deputies saw that the only way to take the car was to begin shooting. Suddenly the right hand of each of the officers went round to the right hip. Some of the men on the car made a like

movement, but at that moment the deputies thought better of it and allowed the special to pull out.

When the train had crossed the last switch, Robinson dropped off and went to bed, and then the fun began in the private car. The road had just been completed to Pueblo, and before they had gone a mile the car was rolling. As they proceeded, the track seemed to grow worse. Mr. Blank had unwittingly "dared" the driver, and the driver was showing the track off. He knew nothing of the presence of Mrs. Blank, and was letting the engine out regardless of consequences. Mrs. Blank was a good sailor, however, and, not being able to appreciate the real danger as the men did, went to bed, but not to sleep. By and by the car began to pitch like a side-wheeler crossing the English channel. The negro forward was busy picking up cooking tools and hammering his head against the hard-wood finish in the kitchen car. The conductor and brakeman were exchanging glances and cold, mirthless smiles. Mr. Blank was holding hard to both arms of a seat. "George," called his wife from her room, "we're going—in the—ditch!"

George gasped, stood up and reached for the bell cord. At that moment they hit a high centre, the car listed, the window came up and crashed against Mr. Blank's elbow.

If he swore, nobody heard it above the deafening roar of the rolling car. The conductor, looking around when the crash came, got a signal in the direction of the slack rope that was threshing along the transoms: "Pull the bell on that lunatic!" yelled Mr. Blank. The conductor reached for the rope. It eluded his

grasp and his elbow went through a window. Another effort secured the coveted cord, but the rope crawled in from the forward car and fell in a heap on the floor.

In the excitement incident to the departure of the special from Pueblo the trainmen had neglected to connect the cord with the bell in the engine cab, so that now they could not communicate with the daring driver.

The train hung to the track, as trains will sometimes do when there is every reason for their going into the ditch, and after a wild run over nearly two hundred miles of new rail it slowed down and left the clerk at Coolidge, just over the State line.

As he was leaving the train, the seal-thief, in the vigorous language of the West, gave the porter his opinion of anybody who would make a business of that sort of night sailing and think that they were having a good time.

The conductor went forward at Coolidge, at the suggestion of Mr. Blank, and explained to the engineer that they were out of the enemy's country, and that it would be perfectly safe to slow down to about a mile a minute.

There was an unwritten law among the trail makers that gave a man with a gun in possession of a pass a title to the same so long as he could hold it. To be sure, it was jumpable, like a mining claim, as soon as the man's back was turned, but that was the holder's lookout.

The boldest bit of work ever accomplished on the



View of Marshall Pass.
(Denver and Rio Grande Railroad.)

CHAPTER XV.

THE DENVER AND RIO GRANDE.

AFTER the war with the Santa Fé, which left the Rio Grande in possession of the Grand Cañon of the Arkansas, the latter company rushed its rails into Leadville. The twelve miles of track that the Santa Fé had chiseled from the granite walls of the wild gorge gave the narrow gauge possession of the only possible pass to the Carbonate Camp in Lake County, to Aspen beyond Tennessee Pass, and ultimately on down the Grand River to Salt Lake and the Pacific.

The great controversy between the rival roads was ended in the complete "lay down" of the big line in 1879.

In the following year the Denver and Rio Grande reached the booming silver camp, where what is now the main line ended for about ten years. In the dawn of the '80s all Colorado was smelting silver, and at that time silver was worth smelting.

Just where the road entered the Grand Cañon of the Arkansas a little mountain stream poured its limpid waters into the river from the opposite shore. Up this narrow, crooked gorge, called Grape Creek Cañon, probably because there were no grapes in it, the pathfinders of the narrow gauge chopped and

picked their way until they reached the high open plain of Wet Mountain Valley. Thirty miles from the main line, in Custer County, lay Silver Cliff, where thirty thousand men, women, and outlaws had assembled to carve out a fortune. It was to reach this booming camp that the company now began the construction of a branch line through Grape Creek Cañon. It finished it in a little over a year, in time to carry away the corpse of the dead camp.*

Beyond the Sangre de Christo, on the Pacific side of the range, Gunnison was thriving like a bit of scandal, building smelters, shipping silver, and developing a burying ground on the banks of the Gunnison River.

Passenger rates on the Rio Grande were six cents a mile in the valleys and ten in the mountains, with freight rates in proportion.

These conditions made great the temptation to the management to try to reach every booming camp in Colorado at the earliest possible moment, and the result was that the millions of money used in constructing new mileage, together with the millions poured in from Europe and the Eastern States of America for the development of mines, and still other millions taken from the hills, gave Colorado an exciting boom, and made it easy to secure money to build roads, the cost of which would tie them with silver and rail them with gold.

While the branch was being built to Silver Cliff, other engineers, leaving the Leadville line at Salida,

* For the story of the undoing of this camp and railroad, see my story, *The Express Messenger*.—C. W.

fifty miles above the mouth of the cañon, toiled up to the summit of the Rockies, reaching the crest of the continent at Marshall Pass—ten thousand feet above the sea—and dropped a line to Gunnison. Besides the silver mines of the Gunnison country they found here the only anthracite coal in Colorado, and immense beds of coking coal. In a little while the boom fretted itself out, the new hotel was closed, the fires died in the big smelter, and finally the public educator, hiding the elusive pea between the two half shells of a walnut, folded his blankets and went away.

Meanwhile the restless pathfinders, from the tops of the wild walls, were sounding the depths of the Black Cañon of the Gunnison for a path to the Pacific.

Below Sapinero the walls of the cañon came so close together that the trail makers were obliged to turn back and find a way to the bottom of the gorge beyond the narrows. A long rope was fixed to a cedar, and a man started down. The rope parted ten feet from the top of the wall, and the daring engineer was dashed to death at the bottom of the cañon. Another rope was brought, another man went over, another, and another, and after burying their comrade in a quiet place they pushed on and planted a flag on the point of Currecanti Needle. They then turned into a side cañon, where the Cimarron empties into the Gunnison, up the Cimarron, over Cerro Summit and down into the adobe, sage-covered desert lands in the valley of the Uncompahgre, the Gunnison, and the Grand. These same adobe deserts are dotted to-day with bits of green meadowland, wide fields of waving grain, and orchards drooping with the finest fruit that can be

found anywhere on the continent. The rails that ran through the narrow, wild cañons were placed but three feet apart, and all that portion of track shown on the company's maps west of Salida is still known as the narrow-gauge system of the Denver and Rio Grande.

Across the blazing Utah desert the locating engineers planted a row of stakes, and in time the locomotive, begrimed with dust and alkali, dragging a huge water car behind it, crossed over to the shores of the Great Salt Lake.

The intention of the projectors of the narrow-gauge system, as the name indicates, was to build a road from Denver to the Rio Grande River, and possibly down to southern California by way of Santa Fé; but when Leadville and Aspen, and other silver camps, began to attract people by thousands and tens of thousands, the company did what was best for the road and for the State. Being a three-feet gauge, the road could go where a goat could find a footing. The locomotives were heavy for the gauge, but with very low wheels. The boilers lay so low that the links, when the lever was well down, would almost touch the ties. The grade on the original main line was two hundred and seventeen feet to the mile. A branch line to the Calumet mines has a grade of four hundred and eight. A heavy locomotive can haul three empty cars—a load and a half—up the hill, and hold seven loads down, sometimes.

The Denver and Rio Grande, before the main line was widened out, was the most pretentious, most important, best equipped, and, so far as we know, the most extensive and successful narrow-gauge system of

railroad in the world. Nowhere have we ever seen such perfect little palaces as were to be found on this three-foot road. The only thing that approaches it in neatness and completeness is a little thirty-inch road that runs along the Suez Canal, from Port Saïd to Ismailia.

The evolution of the motive power of the Rio Grande is an interesting study. The first locomotives weighed twelve tons—less than weighs the empty tank of one of the mountain moguls that scream along that line to-day. The mail cars had four wheels, and when one of them got off the rail the mail agent got out, and then the trainmen put their backs to the car and “jacked it up” on the rail again. The first coal cars had four wheels, a dump in the bottom, and held about as much as an ordinary farm wagon.

A young man named Sample came out from Baldwin's to set up the first engine. When the work had been finished he remained at Denver, repairing air pumps and “tinkering about.” By-and-bye he became foreman of the round-house, and finally master mechanic. He had begun in the big shops at Philadelphia at a dollar and a half a week; now he gave the firm orders for five, ten, or, twenty locomotives at a time. For a quarter of a century he remained at the head of the motive power department, and then they promoted him.

When Mr. Jeffrey became president he took the old master mechanic uptown, put him in a fine office in a big building, and gave him the salary, title, and responsibility of general superintendent of the system; but it did not make the old worker happier than he had been there at the shops, with the sound of the

morning, noon, and evening whistle calling him to and from his work, just as it had called him at Philadelphia in the days when his monthly stipend reached the sum of six dollars.

At first the ties used on the Rio Grande were all pine, but the very hard mountain pine. These little locomotives—four wheels connected—could curve on the brim of a broad sombrero, and it was not an uncommon thing for the locating engineers to run round a big boulder rather than blast it away. They would not shy off for a tree unless it happened to be a very large one.

In the mad rush to reach a booming camp, no attention was paid to banks. Often in the early spring the two sides of a through cut would ooze down over the track and cover it with mud. It was two or three years before the sides of the cuts got the proper pitch and became safe.

General W. J. Palmer was the ruling genius in the building of the Denver and Rio Grande, and was its president when the narrow gauge crossed the Utah desert. The money that made the Utah line seems to have been Palmer money. Shortly after the completion of the road to Salt Lake the Rio Grande Company began to feel that it would like to lose the general, and his general manager, Colonel D. C. Dodge.

Messrs. Palmer and Dodge were not in a hurry to get out. They had won the big battle that gave to the company the right of way through the Royal Gorge, and felt that they were at home. The climax came one night, when a new manager was temporarily installed at Denver during the absence of General-Man-

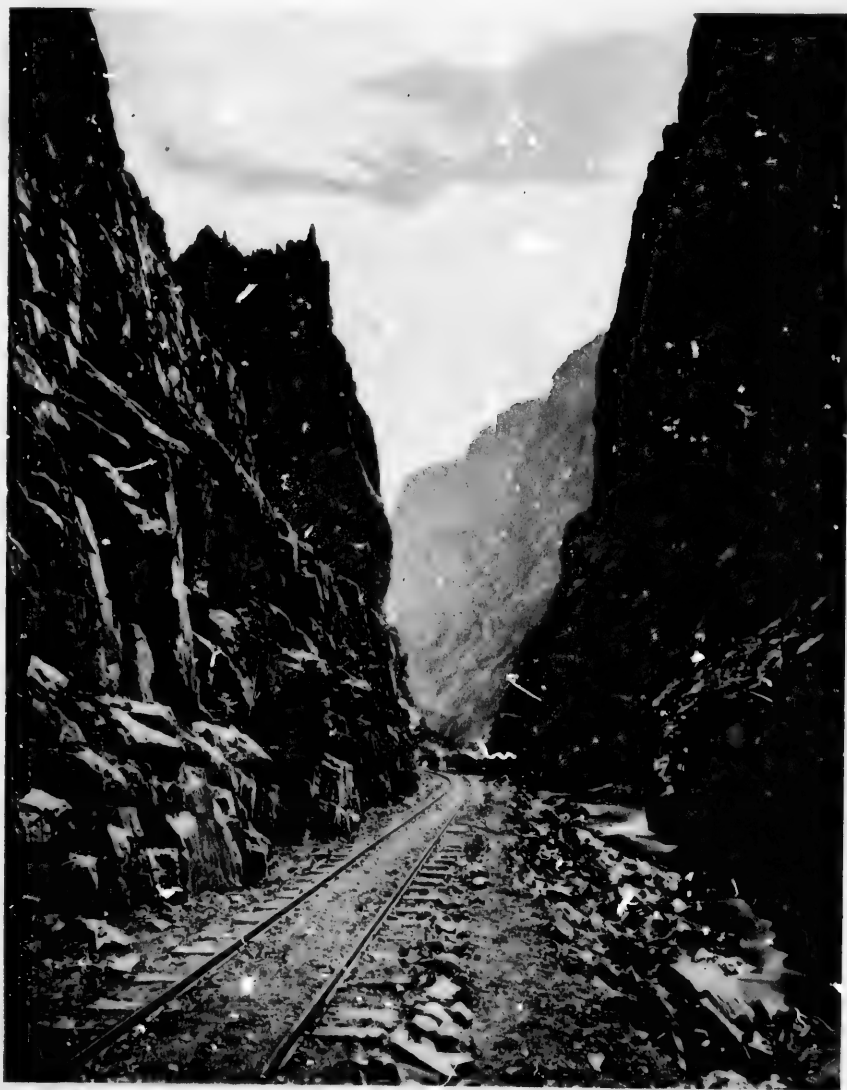
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The Royal Gorge, Colorado.
(Denver and Rio Grande Railroad.)

ager Dodge. The colonel's car was at the rear end of a regular train, and when it came to the foot of the mountain the pin was pulled, and his car allowed to drop in on a shur. Very naturally the general manager was indignant. He raved at the dispatcher, and was about to wire an order dismissing that blameless official, when he was reminded of the fact that he also was at that moment out of a job.

After much delay and a lot of wiring, the car was coupled on again and allowed to proceed to Denver, but that was the end of the reign of Messrs. Palmer and Dodge on the Rio Grande.

But these indefeasible fighters did not go out of business. They pulled the pin on the Western section at the State line, called it the "Rio Grande Western," and took possession. It looked at the moment like a poor piece of property, stretching for the most part away across a desert with a range of mountains and the Utah Valley at the other end, but these far-seeing road makers saw the value of the franchise.

Whatever of rolling stock happened to be at the west end was seized and held by the Rio Grande Western, and the same was done by the parent road. The new manager for the old company now began to get men loyal to his line to go over to the west end and purloin locomotives. When an engineer got near the State line, he would have his fireman pull the pin between him and his train and run over into Colorado. This business went on until both companies grew weary, for it was demoralizing to the service and interfered with the exchange of traffic which was necessary to both roads.

In time matters were adjusted, the superintendent of motive power for the Rio Grande was made consulting superintendent on the western, and in a few years nearly all the operating department, from the general superintendent down, as well as the general passenger agent, were men who had been with the old company.

When the Colorado Midland built across the mountains the already prosperous Rio Grande Western widened its gauge, bought new, heavy locomotives, and began to boom with the business that came to it from the rival roads in the Rockies and from the Central Pacific at Ogden, with an ever-increasing local freight business originating in the mines, fields, and orchards of Utah, while the passenger department could live on half-rate tickets alone, so prolific were the families that flourished at the hearths of the faithful.

Messrs. Dodge and Palmer are still at the head of the road, which, like the O. R. & N., has always been a good road for its owners, its employees, and the section of the country through which it runs.

If we except the New York Central and the Pennsylvania, the Denver and Rio Grande is probably the best advertised road in the world. One reason for this is because it has always had a versatile and enthusiastic passenger agent, but mainly because God has scattered along its line miles and miles of almost matchless scenery, so that every lover of Nature who crosses the continent by this route becomes at once a travelling agent for the Colorado road.

CHAPTER XVI.

THE NORTHERN PACIFIC.

BECAUSE it traversed a country that promised something for man to feed on, the northern route was the one most widely discussed at the beginning of the talk of a transcontinental railroad. It missed the high mountains of the middle West and the deserts farther south. Then, too, in the very early days, before we found out that we were in a great hurry, it was the cheapest route, for by it we were to sail round to the lakes of the Northwest, or paddle up the Missouri, take a train, or some sort of "steam carriage," to the head waters of the Columbia, and fall with the current into the Pacific—trolling for salmon on the way down.

Had it not been for the war with Mexico in 1846, which drew attention to the Southwest, the gold discoveries in California in 1849, which drew attention to the Golden Gate route, the efforts of Jefferson Davis and other influential men of the South in the interest of a southern route—in short, if there had been no other way, the Northern Pacific might have been the first, instead of the third, transcontinental railroad in America.

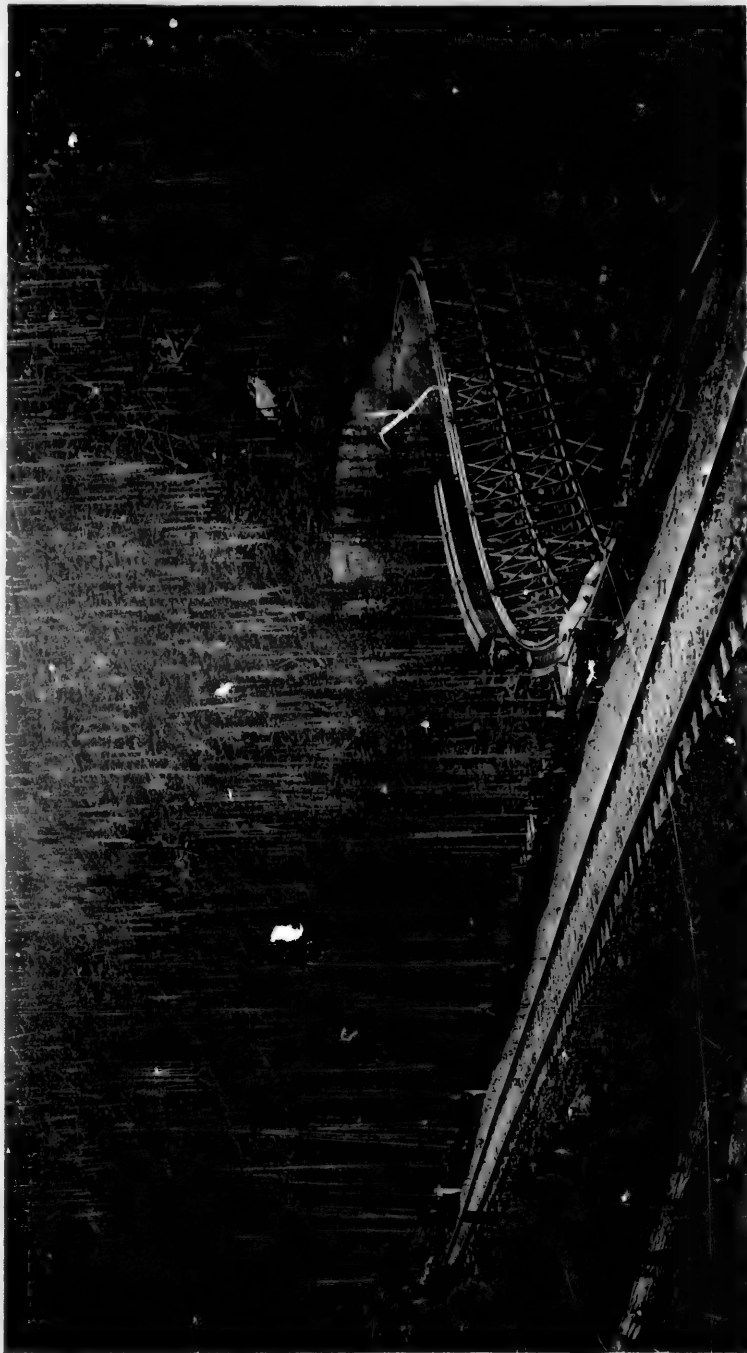
The Pike's Peak excitement in 1859 was another

star by which the pioneer piloted his bull team across the plains, opening a new trail from Omaha to the Pacific, midway between the famed old Santa Fé trail and the proposed path of the Northern Pacific Railroad. In spite of the prophecies of the seers of the Senate, House of Representatives, and the financial world, the middle and far West continued to grow in importance and to give, from year to year, promise of a great future. The Mormons had watered the adobe deserts of Utah, and they had blossomed into broad vales of fruit and flowers. This desert land, so dreaded by early voyagers, that lay glistening in the sun three hundred days in each year, arched over by a sky as fine and fair, as clear and blue as burnished steel, wanted only to be watered to become the garden spot of the world.

But nobody knew this in the early days. The uninhabitable West was looked upon as a thing to be crossed, conquered, and overcome. The plains and deserts were useless, the great Rockies important only as ballast to keep the world right side up. The chief aim of the transcontinental railroad, as already stated, was to reach the Pacific Ocean and the Orient. The possibility of the vast and growing empire that lies between the Missouri River and the Pacific coast to-day was put aside, as the ignorant miners of Nevada put aside the "blue stuff" that polluted their pans and clogged their sluices on the Comstock, thereby daily throwing fortunes in the dump. Nature guards her secrets well, but Time will tell. After all these centuries Africa and Alaska are giving up their gold.

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"S"-Trestle on Cœur d'Alene Branch.
(Northern Pacific Railroad)

demonstrated the riches and resources of the West if the civil war had not made the completion of a railroad to the Pacific a political and military necessity.

When, in 1853, Congress authorized the War Department to make explorations to ascertain the most practicable route for a railroad from the Mississippi River to the Pacific Ocean, the details, including the route or routes to be surveyed, were all left to Jefferson Davis, Secretary of War. Very naturally Mr. Davis favoured a southern route, but it is to his credit that he did not allow his prejudice to interfere with his duty to the whole country in the matter. He set five separate expeditions to work at once on each of the five routes that had been advocated.

These were then known as the 32d, 35th, 38th, 42d, and 48th parallel routes, along which were subsequently built respectively the Texas Southern Pacific, the Santa Fé, the Kansas Pacific, the Union Central Pacific, and the Northern Pacific railroads.

Isaac I. Stevens, who had seen service in Mexico, and was then Governor of Washington Territory, and Captain George B. McClellan, of the United States Army, were placed in charge of the survey along the extreme northern route. Associated with these leaders were a number of young men who won fame in after years. Captain McClellan was afterward commander in chief of the Army of the Potomac, and was once the Democratic candidate for the presidency of the United States. Captain Stevens perished on a Virginia battlefield.

Stevens worked west from St. Paul, McClellan eastward from the Sound.

These things were done in the days when the West was a howling wilderness from the river to the coast. Each of the outfits was armed, clothed, and equipped in true military fashion, and fixed for a long and dangerous voyage. Every mile of territory between St. Paul and the Pacific was held by the Indians, who, painted, feathered, and full of fight, crossed the path of the trail makers daily, threatening the engineers and often engaging them in bloody battle.

Governor Stevens, from the Mississippi, and Captain McClellan, from the Columbia, fought their way up to the low crest of the continent where a base of supplies had been established.

Governor Stevens came out of the work an enthusiastic advocate of the northern route. In fact, nearly every one of the five men sent out as chief of the several surveys seems to have found a way to the Pacific, but the time had not yet arrived for the great work of building the roads, or any one of them. The reports of these expeditions, which were submitted to Congress by the Secretary of War in 1855, filled, with maps and illustrations, thirteen huge volumes. Secretary Davis, as had been predicted, and as was perfectly natural under the circumstances, favoured the 32d parallel route, and argued, when submitting his report, that the road should not leave the Mississippi farther north than Vicksburg.

But finally, when the time came for fixing the starting point for the Pacific railroad, it was fixed by a man politically as far from Mr. Davis as the north pole is from the south pole. When President Lincoln, at the conclusion of his first interview in Washington

with General Dodge, put his long forefinger on Omaha, that settled the question, so far as the first Pacific road was concerned.

In this way the northern scheme was put aside for the time, though never abandoned by the men who had been pushing the enterprise. After the completion of the first transcontinental road the California capitalists, who had made money out of the building of the Central Pacific, built the Southern Pacific, which gave the northern route still another setback.

Asa Whitney, who had been its early and strongest advocate, who was at one time within a few votes of winning from Congress a strip of land sixty miles wide, running from the Mississippi to the ocean, including a title to the Columbia River and sixty miles of sea-coast, went out peddling milk. Three or four Senators of the United States had it in their power to say whether this apparently unselfish man should be the emperor of seventy-seven million acres of land or of a milk wagon, and they gave him the wagon. We say that he was unselfish because he agreed to build a railroad through the middle of his farm, all the way from St. Paul to Puget Sound, without any financial aid from the Government. If he had lived a quarter of a century later he might have been a Gould or a Huntington.

When the control of the Government passed from the South to the North, the friends of the northern route took courage, but the Government was not going to extremes. The friends of what is now the Union Pacific were close to Mr. Lincoln, who seems to have favoured that survey, just as Thomas Jefferson had

favoured the northern scheme, and as Jefferson Davis favoured a southern route, and the result was that the Government gave its aid to the 42d parallel line, over which the Union and Central Pacific roads were afterward built.

On July 2, 1864, after the Union Pacific had secured the necessary legislation to insure the construction of a line from Omaha, President Lincoln signed the bill creating the Northern Pacific Railroad Company. At the head of this enterprise was a man named Perham, who had been before Congress for some time with what he called "The People's Pacific Railroad Company." This was a New England organization, which had been squeezed out of the 42d parallel scheme, and had transferred its faith, effects, and affections suddenly to the northern route. This company was to receive no subsidy in Government bonds. The land grant was to be twenty sections to the mile of track in Minnesota, and forty sections in the territories.

Perham had persuaded himself that a million people stood ready to buy each one share of stock at one hundred dollars a share. Out of this insane notion grew an embarrassing provision in the charter, which prevented the company from issuing mortgage bonds except by the consent of the Congress of the United States.

The act of incorporation named one hundred and thirty-five persons as commissioners to organize the Northern Pacific Railroad Company. In September, 1864, thirty-three of these commissioners, nearly all New Englanders, met at Boston and elected Josiah Perham as president. The officers of the board of

commissioners were directed to open books for subscription to the capital stock. It was necessary that twenty thousand shares of stock should be subscribed for before a board of directors could be chosen to elect permanent officers to take the active management of the business from the commissioners appointed by Congress. Now came John Hancock, who purchased one share, for which he is supposed to have deposited ten dollars with Mr. Increase S. Whittington, treasurer of the board. Two Perhams subscribed for one share each, while Josiah, the president, took ten. John A. Bass bought one share, and S. C. Fessenden four thousand.

In all, twenty thousand and seventy-five shares were subscribed for, and in December, 1864, a board of directors was elected. Josiah Perham now became the first president of the Northern Pacific Railroad Company, and Mr. Whittington chief of the treasury department. Six years later, when the original subscribers were called upon to pay the remaining ninety per cent on their stock, they refused, whereupon the new board confiscated the whole of the original subscription.

At the end of 1865, Perham, having exhausted his means and mental and physical strength, went to the wall, like Asa Whitney. He succeeded, however, in interesting a number of Boston capitalists, notably Benjamin P. Cheney, of the Vermont Central Railroad, and proprietor of Cheney's Express. These enterprising New Englanders, having paid off the debts incurred by Perham, appealed to Congress for aid in building the road.

Two winters were now wasted in Washington in an effort to secure the help of the Government. The "down East" company was not popular in the West. The fact that the New England organization favoured a consolidation or combination with a Canadian line was also worked hard by those opposed to the northern route and in favour of the Union Pacific, and also by a great many public men who were opposed to granting land to any company. Senator Sherman was a bitter opponent of the northern route, though his brother, General Sherman, was one of the earnest workers for a road to the Pacific.

Early in 1867 the president of the Northern Pacific Company conceived the idea of forming a railroad syndicate composed chiefly of railroad men. Through the efforts of his friend, Mr. Thomas H. Canfield, of Burlington, Vt., he succeeded in getting the signatures of the following influential men to an agreement to take the Northern Pacific franchise, debts, and other disadvantages, and to try to push it to a practical beginning, if not to completion. The first big man to sign what was afterward known as the Original Interest Agreement was President William B. Ogden, of the Chicago and Northwestern Railroad. Later they obtained the signatures of the presidents of the Erie, the Pennsylvania, the Pittsburgh, Fort Wayne and Chicago, and of Vice-President Fargo, of the New York Central. Other signers of the Original Interest Agreement were A. H. and D. N. Barney, and B. P. Cheney.

The new syndicate employed an eminent engineer, Mr. Edwin F. Johnson, and began surveying a line,

lobbying at Washington, and printing pamphlets. In a little while they had gone into their private purses for a quarter of a million dollars. Despite all reverses, the holders of the franchise still clung to the belief that it was valuable. True, the Government gave no financial aid, but the land grant was double the amount per mile given to the Union and to the Central Company, and the land much more valuable. At all events, it was so regarded at that time.

In 1869, just after the completion of the Union Pacific, the banking firm of Jay Cooke and Company was asked to take the financial agency of the northern road. Before giving an answer, the big banking house sent experts of its own to explore the country through which the proposed road was to run. One outfit went round to the mouth of the Columbia, while another, accompanied by President Smith, explored from Lake Superior to the Red River of the North. The Pacific coast party was chased from the Yellowstone by Indians, while the members of the eastern end of the expedition, together with their military escort, were forced to fly for their lives from Fort Stevenson to the settlements in Minnesota, pursued by a big band of savages. The expert engineer of the banking house put the cost of the road and the necessary equipment at \$85,277,000, an average of \$42,638 per mile. The report was on the whole very encouraging to the banking house, and it became the financial agent of the company.

The main terms of the Jay Cooke contract are set down in Mr. E. V. Smalley's History of the Northern Pacific Railroad as follows:

"They provided for an issue of bonds to the amount of one hundred million dollars, bearing interest at the rate of seven and three tenths per cent in gold.

"The banking firm credited the railroad with eighty-eight cents on the dollar for the bonds it sold, and as it disposed of them at par its margin was a very liberal one. But the contract gave it two hundred dollars of the stock of the company for every thousand dollars of bonds sold, which would have amounted, for the completed road, to about twenty million dollars, and one half of the remainder of the one hundred million dollars of stock authorized by the charter.

"The twelve original proprietary interests which owned the stock were increased to twenty-four, and twelve of them assigned to Jay Cooke and Company. A considerable amount of the stock was given by the banking house to subscribers to the bonds, but in all cases an irrevocable power of attorney was taken, so that the firm, having purchased a thirteenth interest, controlled the management of the company's affairs. Other specifications in the contract made the firm the sole financial agent of the road, and the sole depository of its funds; provided for the conversion of the six hundred thousand dollars of stock outstanding into bonds at fifty cents on the dollar, created a land company to manage the town sites, and bound the firm to raise five million dollars within thirty days, with which the company was immediately to commence building the road."

A pool was formed in Philadelphia to furnish the five million dollars that had to be paid in at once for the beginning of construction work. The members of

the pool took the bonds at par and received the twelve proprietary interests at fifty dollars each. Out of this little deal the banking house made considerably more than a million dollars. By the time the road reached Red River each of the twelve proprietary shares had earned a little over a half million dollars' worth of stock. A company had been formed to speculate in real estate along the line—destroying old and building up new camps, planting county seats and settling waste places, one half the profits of which went to the bank.

The Congress of the United States, which had stood firm against the combined pull and push of the powerful railroad syndicate, went down at the first fire from the great gold-clad cruiser, Jay Cooke and Company.

To be sure, the truly virtuous men of both houses made a strong fight, but they were outgunned by the opposing fleet. The joint resolution upon which the fight was made was introduced in 1870, authorizing the issue of bonds secured by the land grant as well as the railroad property, including even the filing of the mortgage in the office of the Secretary of the Interior. It practically enlarged the area of the land grant to thirty miles in the States and fifty miles in the territories on each side of the line.

Yet, with all the advantage enjoyed by the banking house in the way of gifts of interest, commissions, and the absolute control of the financial end of the enterprise, Jay Cooke and Company found it hard to raise the money. A deal had been made, and nearly carried out, by which a syndicate of European bankers was to take fifty million dollars' worth of the bonds, but at

that moment Napoleon III began to make trouble for himself on the Rhine, and the deal fell through.

By liberal advertising in almost every available space Jay Cooke and Company succeeded in raising a considerable amount of money by the sale of bonds (the interest upon which was payable in gold) in the United States. Thousands of names were written upon the big books in the great banking house, many of them the names of comparatively poor people. The Cookes now used for advertising purposes the speeches of congressmen who had opposed the land grant upon the ground that the land was rich, fertile, and extremely valuable.

Actual construction work on the Northern Pacific was begun in the summer of 1870, at Thompson's Junction on the Lake Superior and Mississippi Railroad, also controlled by Jay Cooke and Company. Within the following twenty-four months more than thirty million dollars were received from the sale of bonds, and it seemed that nothing could break the big bank that was back of the Northern Pacific Railroad. The house had already made an enviable reputation and much money by placing the Government's war loans, and now thousands were eager to trust their savings to it.

Early in 1872 the company took the completed portion of the road as far west as Red River from the contractors and opened it for traffic. The Lake Superior and Mississippi was leased, and a controlling interest bought in the Oregon Steam Navigation Company, operating nearly all the steamboat lines on Puget Sound, the Columbia, Snake, and Willamette rivers, making

connection with the ocean steamers to San Francisco. The Northern Pacific Company by this latter purchase came also into possession of the portage railroad at The Dalles and Cascades on the Columbia, which gave it control of nearly all the transportation facilities then existing in Oregon and Washington Territories.

Despite the liberal flow of money into the bank at the East, the rapidity with which it was spent at the West found the company embarrassed as early as August, 1872. President Smith, who seems to have given the road its first real start, now resigned. The house of Jay Cooke and Company went to the wall in the panic of 1873, and in 1875 a receiver was appointed for the Northern Pacific Railroad Company.

Jay Cooke and Company had advanced to the railroad company a million and a half dollars to push construction, while the directors of the road had borrowed on their own individual credit vast sums of money to hurry on to the Pacific, and now it all had to stop.

In 1875 General George W. Cass, who was president of the company, was appointed receiver. The winding up of the business of the bankrupt road by Judge Nathaniel Shipman, the shutting off of lawyers who were anxious for delay, and the shutting out of the financial undertakers, who are always waiting about to receive the remains of a dead enterprise, was a big piece of work justly and ably performed by the court. The bonds bought from Jay Cooke and Company were converted into preferred stock, the thirty-three million dollars of debt wiped out, and the original bondholders left in possession of five hundred and seventy-

five miles of road and ten million acres of land free of encumbrance.

Mr. C. B. Wright, who became president of the Northern Pacific when General Cass was appointed receiver, was succeeded by Mr. Frederick Billings in 1879. Mr. Billings was able to raise money, and the work of completing the road was recommenced. He succeeded in interesting Messrs. Drexel, Morgan and Company and Messrs. Winslow, Lanier and Company, and through these big firms secured the funds for the completion of the road in 1883, just about a half century from the time when the subject of a Pacific railroad had begun to be agitated in the press, and thirty years after the first survey had been made.

In the general shaking up of 1873 the Northern Pacific lost the footing it had gained by purchasing a controlling interest in the steamboat business on the Columbia. In this way the back door was left open, and a new man slipped in, who was destined to mix things for Mr. Billings and others who had come into possession of the then unfinished railroad.

This unknown man was Mr. Henry Villard, a German-born journalist, who developed into one of the great promoters of the day. In the interest of a syndicate of New York capitalists, Mr. Villard came up through the mouth of the Columbia for the first time in 1874. Later he represented the bondholders of the Kansas Pacific, also suffering from the short crops of 1873. In 1876 he was appointed one of the receivers of the Kansas Pacific, and afterward removed by the same court. Some of Mr. Villard's friends have complained that Jay Gould wanted to run everything in

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his own way in the reorganization of the Kansas road, and that he violated every agreement made with the original owners. As to Mr. Gould's desire to run things, it might be put down as an interesting bit of history that Mr. Villard showed as much ambition in that direction as did he, and almost as much ability.

Finding an open door, he came into the territory of the Northern Pacific and looked about. It wanted but a glance for a man with such a nose for business to see the possibilities of the Columbia River and of Oregon. He secured an option on the controlling interest of the navigation companies, the right of way for a railroad up the Columbia Valley, and other valuable franchises. He knew that the original intention of the Union Pacific Company had been to drop a line from Wyoming across Idaho into the Pacific at Portland, Ore., and now he proposed to find the money for half the road if the Union Pacific would find the other half, which would give them, with their Central Pacific connection at Ogden, two legs of a "Y," with one foot on San Francisco and the other on Portland. The Union Pacific spent a few days in investigating the matter; then it declined the offer, and spent a few years in regretting it.

Mr. Villard did not despair. He sought help elsewhere, secured it, and in 1879 incorporated the Oregon Railway and Navigation Company. The work of constructing a railroad on the south bank of the beautiful Columbia began the same year. This was going to be a good road to own so long as it had no rival, but the Northern Pacific was liable to build down the north bank of the Columbia, and Mr. Villard set about

to prevent the construction of that line. He introduced himself to the Northern Pacific and asked for a traffic arrangement. Having induced the Northern Pacific to use the Oregon Railway and Navigation Company's track to Portland, he endeavoured to secure an agreement to use it for all time, and a promise that the Northern Pacific would not build down the Columbia.

That was good business. There is no valid reason for building two roads where there is a living for but one, but the Northern Pacific would not agree. Now Mr. Villard began to develop into a promoter. It was in 1880, when money was piled up ready to be risked. He did not tell even his closest friends what was in his mind. To his business acquaintances in the East he sent an invitation to join him in a new company he was about to form. They were invited to make up a pot of eight million dollars and ask no questions.

There was a certain amount of mystery about the transaction. Almost every one who received this invitation to come in on the ground floor felt that he had been let into a great secret, subscribed and asked for more without knowing exactly what he was about. The next day Mr. Villard had the money. Then he called a meeting, explained his scheme, asked for twelve million dollars more, and got them. When everything had been arranged, the young organizer nipped enough Northern Pacific stock to put his company in control of the road.

Before this Mr. Villard, with a limited amount of modesty, had asked for a seat with the Northern Pa-

cific directors, but had failed to get it. Now he strolled in, smiling, and rested his hand on the back of Mr. Billings's chair. "Keep your seat, keep your seat," he said, as that gentleman started to rise. "Don't get up on my account. This is all done in the interest of the Northern Pacific Railroad Company, and not for the benefit of the Oregon line."

Now, as a matter of fact, Mr. Billings was really anxious to give up the presidency of the road, and without more ado he got out of the chair. It had all come about so swiftly and suddenly that the general himself was surprised. He was not ready to assume the active management of the property, and it was arranged that Mr. A. H. Barney should take the presidency for a year, when Mr. Villard, to whom had been refused a seat on the board, took his place at the head of the table.

If Jay Gould ever rounded up a railroad, corralled a company, or roped and marked a maverick for his own more neatly or completely, his historians have failed to record the incident. The striking difference between Mr. Gould and some of his opponents was that the former never squealed when he happened to come out second best. The ultimate aim and ambition of all the magnates was the same.*

Later the Oregon line became an independent road, or rather a system of roads. A few years ago it was being operated as a part of the vast Union Pacific system, but was lost in the break-up of 1893, just as

* It is not within the province of this book to trace the financial vicissitudes of the Northern Pacific within the last fifteen years.

the Northern Pacific Company lost it twenty years before. To-day it is being operated as an independent line. It was from the start, has remained, and is now one of the very best pieces of railroad property in all the West.

Millions of men and women know the beautiful river that runs from Albany into the Atlantic Ocean. The writer has seen it from the engine of the Empire State express at a mile a minute, when the oak leaves, turning with the touch of Time, were all aflame with the fire of a dying day. And yet, watching from the window of a car as it winds along the banks of the noblest river of the Pacific slope, in the shadows of wild, native woods, hear the splash and feeling the spray of foaming falls, one is apt to say that the hills of the Hudson are the banks of a sleepy canal compared to the wild grandeur of the beautiful Columbia.

CHAPTER XVII.

THE CANADIAN PACIFIC.

BEFORE the Canadian Pacific Railway, or back of it, there was the beginning, in 1867, of the Dominion of Canada, created by the confederation of the several provinces under a general government. Before that there were Indians, and back of the Indians the mountains, lakes, and forest; but back of everything was the Hudson Bay Company. That institution seems always to have been here. A half hundred years ago its trappers were found on nearly every river that ran between the Arctic Ocean and the Gulf of Mexico. The early pathfinders crossing the plains took tips from these men, and the first overland caravans were often piloted along the old Santa Fé trail by the fur-catchers from Canada. Having been here always, the Hudson Bay Company claimed the earth by right of discovery, or, at least, all of it that lay between the Rocky Mountains and the watershed of Lake Superior.

Now, the Canadian Government, being ambitious, wanted a dominion washed by the waters of the Pacific as well as by the Atlantic, but before it could hope to have absolute empire over all the vast region that reached from ocean to ocean it must do away with the Hudson Bay Company, which had a government of its own. The company was disposed of by a cash pay-

ment of a million and a half dollars, the retention of its occupied posts, and five per cent of all lands lying between the Red River Valley on the east and the Rocky Mountains on the west, and extending as far north as the great Saskatchewan. This purchase carried the Dominion of Canada to a line marked by the summit of the Rocky Mountains, between the forty-ninth and the fifty-fourth parallel, thence on the one hundred and twentieth meridian to the sixtieth parallel, which lines form the eastern boundary of the Pacific province, British Columbia, north of which the Dominion was extended westward to the one hundred and forty-first meridian west of Greenwich, which is the eastern boundary of Alaska in that latitude. This was one of the largest real-estate transactions on record.

In 1871 British Columbia entered the union, thus extending the Dominion of Canada to the Pacific Ocean. The principal condition of this union was that the Dominion should within ten years connect by rail the seaboard of British Columbia with the railroad system of Canada, construction to commence at the Pacific coast in 1873. Surveys were immediately commenced and prosecuted for years, but the work of construction was not begun until 1875, and then not at the Pacific coast, but at the Lake Superior end. Work at the coast was not commenced until 1879. Some of the delay is accounted for by the fact that the records of the first three years' survey were destroyed by fire in Ottawa early in 1874.*

* These facts and figures are taken from a paper read by Mr. Thomas C. Keefer, President Am. Soc. C. E., at Milwaukee, in 1888.

The Parliament of Canada had decided in 1872 that the road should be constructed and operated by a private corporation subsidized by the Government, and a contract was made in that year with the late Sir Hugh Allan for its construction within ten years, and its operation for a similar period on the basis of a subsidy of thirty million dollars cash and fifty million acres of land. Sir Hugh controlled a transatlantic steamship line, and desired the railroad for inland connection. This excited powerful antagonism, and his project was so discredited in the money market that he failed to form his company. The Government also was defeated on a question arising out of this contract, and retired. The new Government was bound to carry out the agreement with British Columbia, but, not feeling responsible for its details, did not regard time as the essence of the contract, and considered it an impossible one in that respect, especially after Sir Hugh Allan's failure. It was determined, therefore, in 1874, to proceed with it as a public work, and construction was commenced between Lake Superior and the prairie region in the following year. The Government of 1874 was defeated in 1878, its opponents returning to power. They, after continuing the construction as a public work until 1880, reverted to their original policy of construction by a private company. The terms of the contract with this private (the present) company were:

1. Twenty-five million dollars cash and twenty-five million acres of selected land in the fertile belt, in addition to the right of way for track and stations,

shops, docks, and wharves on or through public property.

2. Free import of all steel rails and fastenings, fence and bridge material in wood or iron for original construction, and telegraph wire and instruments for first equipment.

3. The Government sections under contract—about seven hundred miles—to be completed, with stations and water service, but without rolling stock, and handed over to the company on the completion of that contract as a free gift. This seven hundred miles of road had cost the Government thirty million dollars.

4. Perpetual exemption from taxation by the Federal Government.

5. No line to be chartered south of the Canadian Pacific for a period of twenty years, except for a direction southwest or west of south.

The company bound itself to build two thousand miles of road and to operate the transcontinental line for a period of ten years. The road when completed was to be as good as the Union Pacific was found to be in 1873, four years after the last spike was driven.*

* "When the Canadian Pacific was about to be built, the Dominion Government, some time in 1873 or 1874, examined the Union Pacific Railroad carefully, and, in making its contract for the building of the Canadian Pacific, used the Union Pacific as its standard; and there occurs a clause in their contract which provides that the Canadian Pacific, when completed, shall be equal in all its parts (in roadbed, structures, alignments, and equipment) to the Union Pacific as found in the year 1874; and that Government is now (1888) making a settlement with its con-

The capital stock of the Canadian Pacific Company was fixed at one hundred million dollars. Here, as in the building of other transcontinental lines, great calculations were made and vast sums of money expected from the sale of lands, but these could not be sold for the simple reason that the Government was giving away land that was just as good. By the autumn of 1883 sixty-five million dollars of the capital stock had been sold and all the money expended in construction.

Rival interests now assailed the road, aided by the Government's political opponents, creating such distrust that the remainder of the capital stock could not be sold at all. About this time the Northern Pacific was in trouble, creating a bad state of affairs in the money market, and altogether the Canadian Pacific Company was in a bad way. Early in 1884 the company was obliged to apply to the Dominion Government for a loan of \$22,500,000. This made a total loan of \$29,880,000, to secure which the Government took a lien upon the entire property of the company. In consideration of this loan, the company agreed to complete the transcontinental line by May 1, 1886, five years ahead of time.

The road was now being built at the rate of nearly five hundred miles a year. Parts of it were comparatively cheap, others extremely expensive. There is one mile of the Canadian Pacific, along the eastern shore of Lake Superior, where the rock work was very heavy, that is said to have cost the company nearly three

tractors, and claiming that the Canadian Pacific has not yet been brought to that standard."—GENERAL DODGE, *Chief Engineer Union Pacific Railroad.*

quarters of a million dollars before the naked track was ready for a train to pass. And so, with this rapid, expensive road making, the company was soon in financial difficulties again. Again it was forced to turn to the Government, which seems to have stood loyally by the road, no matter what political faction was managing the public finances.*

It took a vast amount of capital, as well as of courage, to carry a main line of railroad from Montreal to the Pacific through a country that was for the most part not settled at all. It was like building over the American Desert. No man could say what the road would cost in the first place, and what the cost of keeping it open would be, or give a reasonable guess as to its earning capacity. The engineers had been able to make out that there would be a lot of heavy rock work along the lake region, "muck" in the moorlands, "gumbo" on the slopes, and snow on the mountains. The passes, compared with other passes in the Rockies, were surprisingly low, but in the Northwest even a low mountain can make trouble.

The Rocky Mountains dip down as they go north, terminating as a distinct range near the fifty-second parallel, where they are cut short by the Peace River,

* "The Canadian Pacific Railway is the work of Canada exclusively. The road was undertaken by Canada as a political and commercial one, to fulfil the compact with British Columbia, and unite together all the provinces of the Confederacy, but chiefly in order to develop the vast estate purchased from the Hudson Bay Company. It has been carried out by her people without any assistance from the Imperial Government—not even the endorsement of Canadian securities to obtain a low rate of interest."—THOMAS C. KEEFER, *Chief Engineer*.

which heads in behind them, draining the table-land between the Coast Range and the Rockies. The Denver and Rio Grande and the Colorado Midland cross the continental divide ten thousand feet or more above the sea. The Union Pacific crosses at a little over eight thousand feet, the Northern Pacific at a still lower altitude, while the Canadian Pacific, the farthest north of all the transcontinental lines, reaches the crest of the continent only five thousand two hundred and ninety-six feet above tide water. Between the international boundary and Peace River ten passes were explored by the Canadian Pacific engineers, all lowering northward, from seven thousand to two thousand feet. The range, which is sixty miles wide at the forty-ninth parallel, narrows to forty miles before it reaches Peace River, where it practically pinches out. The three mainland ranges crossed by the Canadian Pacific are the Coast Range, the Gold Range, and the Rockies (whose rivers run down to the Arctic Ocean and Hudson Bay on the north and east, and into the Pacific on the west), extending from the eastern slope of the Rockies to the end of the track at Vancouver, a distance of five hundred and twenty-two miles.

In Colorado the timber line is reached at about eleven thousand feet, while in the Canadian Rockies nothing grows over seven thousand feet above tide water. At six thousand feet snow falls in every month of the year in the Northwest, while in Colorado, Utah, or Nevada delightful valleys lay six and eight thousand feet above the ocean, bathed in almost perpetual sunshine in summer and a great part of the time in winter, with no snow between May and October. That is why

the ranges in the North were so much dreaded before the road was built. It took years of tireless watching and "sleeping out" on the part of the engineers to solve the snow problem. They had to get acquainted with the country and the avalanche and learn to handle it, and at the same time to take care of what they call the "flurry"—the local hurricane produced by the passing of a snowslide. Trees standing one hundred yards clear of the path of an avalanche have been clipped off short fifty feet above the ground. Others even farther away have had their trunks packed full of fine snow, so hard that a cat could not scratch it. If a slide struck a crag and shied off, the "flurry" kept straight ahead over the obstruction, sweeping everything before it for hundreds of yards. A big avalanche—one travelling rapidly—accompanied by a good "flurry" is said to be about the wildest thing ever seen in the hills. To steer the avalanche away from the openings between sheds, the engineers built "Λ" splits—triangular pens filled with stone or dirt—above the gap, which caused the slide to part and pass on either side and over the tops of the snowsheds, which in a slide country are very substantially built. It is an interesting fact, however, that there were ten years ago nearly ten times as many miles of snowsheds on the Central Pacific, which crosses the continental divide near the forty-second parallel, as there were on the Canadian Pacific.* Probably no other

* "There are said to be six miles of staunchly built snowsheds on the Canadian Pacific, and sixty miles on the Central Pacific Railway."—THOMAS CURTIS CLARKE, *The American Railway*.

railroad in the world has a more substantial and complete shed system than has been here worked out by that eminent American manager, Sir William Van Horn, and his assistants, superintendents, and engineers.*

While the climatic conditions were more or less against the builders of the Canadian Pacific, the Indians were not. Either they had a better breed of Indian up North or a better way of handling him. At all events, they seem to have made little or no trouble for the trail makers. Only when fired by a dash of the blood of the paleface or an overdose of fire-water did her Majesty's red children make trouble.

Infinite pains must have been taken by the engineers who located the line of the Canadian Pacific. The road runs from Montreal to Lake Superior with a maximum grade in either direction of one per cent and a minimum curvature of six degrees. In but one place—going west from Lake Superior—does the grade exceed one per cent until the Rocky Mountains are reached. All the gradients on the main line that exceed one per cent are encountered on a stretch of one hundred and thirty-four miles between Bow River in the Rockies and Illecillewalt, on the western slope of the Selkirk Mountains. Instead of following the Columbia River round a long, horseshoe bend, the road climbed over the Selkirks, saving nearly a hundred miles, the short cut being less than one third the distance travelled by the river. The pass over the

* Sir William Van Horn, formerly General Manager, and now President of the Canadian Pacific, is an American by birth. He began as a timekeeper on the Illinois Central.

Selkirks, which is only forty-three hundred feet above the Pacific, was discovered after months of hard work by Major Albert B. Rogers, one of the most persistent and skilful of American engineers. It is said to be one of the few passes on this continent where the locomotive has blazed the trail for the Indian, the scout, and the prospector.

The last spike in the Canadian Pacific was driven in 1885, but no attempt was made to work the trans-continental line during the following winter. The track-laying had been rushed to complete the line, and now the winter shot down and closed it. Engineers, provided with meteorological instruments, snowshoes, and dog-trains, stayed in the country to get acquainted with the "flurry" and the slide. During the summer of 1886 snowsheds were built, with troughs at the tops, through which ran water from adjacent springs, to be used in case of fire, and with "splits" to protect the open breathing spaces between the sheds, for long sheds are dangerous; they hold the smoke from the locomotives, darkening the interior, and hiding the signals of trainmen, as well as making it difficult to hear the whistle of the engine. There is no more dangerous place for train and enginemen on the rail than in a long snowshed on a steep grade.

It is on the slope of the Selkirks that the "gumbo" is found. This is a sandy loam quicksand, which oozes out of the sides of the cuts and covers the track. The oozing was finally stopped by driving a double row of piles on either side of the track and filling the space between them with coarse gravel or broken rock.

On leaving the Columbia, the line crosses the Gold

Range through the Eagle Pass, a remarkably favourable one, the summit being only eighteen hundred feet above tide, although in a range with many snow-capped mountains. From the western side of the Gold Range the line follows the shores of lakes and rivers, which discharge into the Pacific Ocean upon Canadian soil. In crossing the dry zone, or bunch-grass grazing plateau of British Columbia, there is heavy work and tunnelling along the rock-bound shores of the lakes; but it is when the line descends the Thompson and Fraser Rivers, where these cut through the Coast Range, that the heaviest consecutive hundred miles on the whole route are encountered. This section, built by the Government, cost about ten million dollars, or eighty thousand dollars per mile, without rolling stock or stations.

Another serious and unexpected difficulty with which the management of the new transcontinental line had to deal, after the road was opened, was the "creeping track." West of Winnipeg, where the road-bed is highly elastic, the track creeps with the movement of a passing train. At the bottom of a boggy sag, called a "muskeg" by the Indians, there is a small bridge, and from this bridge the track used to creep east and west. The difficulty was finally overcome by putting in twelve-foot ties and forty-inch angle bars, with a slot in alternate sides of the rails at every tie to hold them in position. The following description of the action of the "creeping track" is given by Mr. Whyte, superintendent of the division:

"The track would yield about six inches to every passing train. With a heavy consolidation engine,

hauling thirty-five cars, this track crept twenty-six inches in the direction in which the train was moving. The rails creep for about three quarters of a mile east and about half a mile west of a small bridge at the foot of a grade in both directions. They creep with every train, and in warm weather will often run twelve inches under an ordinary train. Track bolts break almost daily, and repairs are to the extent of a box of bolts per month. Cinder ballast keeps the track in line and surface fairly well, but does not in the least prevent the creeping of the rails. Lining and surfacing are necessary at least once a week. On account of the flanges on the angle plates, spikes must be left out of a tie on each side of these plates, otherwise the creeping rails would carry the ties with them and throw the track out of gauge. Three trains running in the same direction are often sufficient to open all joints on one side and close them on the other side of the bridge between. The whole muskeg, when a train is passing, shows a series of short waves five to six inches deep, rising and falling with the passing load, and the rails can be seen moving with the moving train."

Before the Leslies had perfected their rotary snow excavator, the danger of having trains snow-bound was a source of constant dread and uneasiness to the railroad officials. Marshall Pass, on the Rio Grande, was once blocked for eight days in the days of the pilot plough. The passenger trains were held at the foot of the hill on either side of the range, but in one or two cases enginemmen who got separated from the main force actually suffered for want of food. An en-

gineer and fireman undertook to fall down the two-hundred-and-seventeen-foot grade, but got stuck four miles from the summit. Here they remained until they began to eat the tallow out of the tallow pot, for the storm that was raging there, eight or ten thousand feet above the sea, made it impossible for either to venture out. On the eighth day a successful attempt was made to open the road, and the starved crew was rescued.

As late as 1890, in the latter part of May, the Union Pacific Company had a snow contest on Alpine Pass to settle for all time the question as to the best snow machine to be used on the mountains of its system. The contest, which lasted three days and cost the company something over ten thousand dollars, was an exciting one, but it was worth the money, and settled the snowplough question not only for the Union Pacific, but for nearly the whole snow country.*

In order to reduce the danger of snow blockades to a minimum, and to enable the passenger department to give assurance to prospective passengers of the absolute safety of the journey, Mr. Van Horn, then the general manager of the company, caused a number of "caches" to be made in the mountains, just as the voyageurs of the Hudson Bay Company, explorers and hunters, had done in the earlier days. For hundreds of miles no supplies could be procured except by trains, and, in view of detentions, each through train from Montreal, in addition to the dining-car supplies, car-

* A full account of this contest, under the title of *A Novel Battle*, will be found in *Tales of an Engineer*.

ried in the baggage car an emergency box of provisions, to be used exclusively for passengers, and only in case of necessity. Besides this, at nine points on the Selkirks and Eagle Pass, where detention by snow-slides was possible, provision magazines were established in safe positions, at intervals of about ten or twelve miles, so that no train could be caught more than six miles from food. These provisions were taken away in the spring and replaced by fresh supplies in the autumn. Coal and oil supplies for the passenger cars were similarly "cached," and emergency fuel for the locomotives, bridge and track material held loaded on cars, to shorten the detention of trains.

The Canadian Northwest, however, first opened and prepared for settlement by the building of the Canadian Pacific Railway, is not all avalanche, "flurry," and glacier. The valley of the Red River of the North is one of the finest wheat fields in the world. The continental line runs through nearly four hundred miles of wheat land that is better than all the gold lands of the far Northwest. One hears and reads a great deal about the fifty millions of gold that the Klondike promises to give up this year, but nothing is said of the one hundred million bushels of wheat that are now being wimples by the warm "chinook" and bathed in the sun of an eighteen-hour day.*

* "Another climatic feature peculiar to all high latitudes, which accounts for the ripening of grain and vegetables in the Peace River region and north of the sixtieth parallel, is the greater length of the day and the greater amount of sunshine, the sun rising on June 21st at 3.12 A. M., and setting at 8.50 P. M.
—Dr. DAWSON, *Canadian Geological Survey*.



A phase of bridge construction.
(Northern Pacific Railroad.)

The explorations and surveys for the railroad had made known the character of the country it was to traverse. In the wilderness east, north, and west of Lake Superior forests of pine and other timber and mineral deposits of incalculable value were found and millions of acres of agricultural land as well. The vast prairie district between Winnipeg and the Rocky Mountains proved to be wonderfully rich in agricultural resources. Toward the mountains great coal fields were discovered, and British Columbia beyond was known to contain almost every element of traffic and wealth.

Finally, the forces working toward each other met at Craigellachie, in Eagle Pass, in the Gold or Columbia Range of mountains, and there, on a wet morning, the 7th of November, 1885, the last rail was laid in the main line of the Canadian Pacific Railway.

The close of 1885 found the company, not yet five years old, in possession of no less than four thousand and three hundred and fifteen miles of railroad, including the longest continuous line in the world, extending from Quebec and Montreal all the way across the continent to the Pacific Ocean, a distance of over three thousand miles, and by the midsummer of 1886 all this vast system was fully equipped and fairly working throughout. Villages and towns, and even cities, followed close upon the heels of the line builders; the forests were cleared away, and the soil of the prairies was turned over, mines were opened, and even before the last rail was in place the completed sections were carrying a large and profitable traffic. The following years were marked by an enormous development of this traffic,

by the addition of many lines of railroad to the company's system, and by the establishment of the magnificent steamship service to Japan and China.

But the future of Canada and of the Canadian Pacific depends not upon the traffic of the Orient nor on the gold of the Klondike, but upon the settlement and development of the great Northwest; and by-and-bye men will not say that Canada made the railroad, but that the railroad made Canada.

CHAPTER XVIII.

ROAD MAKING IN MEXICO.

JUST as great wars have developed great generals, so has the railroad brought out some remarkable men. There are great road makers who make roads all their lives and die in the graders' camp. Others, more versatile, build roads and then run them, and in time become great managers, for it is well for the president to know what is between the ties. The home of the road maker is always at the front. The whistle of the work engine echoes in a wilderness.

Twenty-five or thirty years ago a boy began pushing a truck, for fifty cents a day, on the Vermont Central Railroad. He kept the truck oiled and was promoted, but slowly, and he went to California *via* Panama. He worked all the way from California to Alabama, and in 1871 was station master at Mobile. Ten years later he was general superintendent, resigned, and went to Mexico to build the line of the Santa Fé system known as the Sonora Railway, and there is where this story should begin.

The Mexican Government, for reasons which were not published, refused to allow the road to be built from El Paso to tide water, but compelled the contractors to begin at Guaymas, halfway up the Gulf

of California, and build back. Everything had to be brought around Cape Horn by sailing vessels. The ships carrying material to the track makers made one round trip per year. In order to be sure of a small working force, the builder of this sea-fed railroad took two hundred negroes overland, and employed at once all the Indians and Mexicans who could be persuaded to work. Not all the negroes had characters. Many of them had two names and a razor, and when they distributed themselves among the natives on the night that followed pay day thoughtful men slept in storm cellars. Idle Mexicans, jealous of the Americans, created or incited riot at every opportunity. The Indians were Indians, and, as a whole, the graders of the Sonora would rank with the hardest working force ever collected on the continent.

The man who undertook the construction of the Sonora Railway in the face of the most serious complications was Daniel Bullard Robinson, whose first promotion came as a result of his care for a push-truck down in Vermont. Mr. Robinson had with him one of the most heroic as well as most popular engineers ever employed in the West. His name was Morley. He was the hero of that famous morning ride from Pueblo to Cañon City, in the fight for the Royal Gorge. His name is on the sign-board above the station halfway up the eastern slope to Raton Pass. All the men who fought under, over, or side by side with Morley in the great battle that ended with the opening of the West speak well of him. Ex-President Strong, of the Santa Fé, speaks of him as an affec-

tionate father speaks of a dutiful son who has lately passed away.

Not long ago the writer asked Mr. Robinson about the famous pathfinder. His face showed instantly the interest he felt in the subject. "Morley's head was on my shoulder when he was shot," said the president of the 'Frisco line, watching the "desert" that he had helped to conquer slip away from his private car.

"We were travelling overland in a wagon," he went on. "We used to make hundreds of miles in that way, and, of course, in that wild country, where a great majority of the inhabitants were opposed to new things, we had to look out for ourselves. There were Indians always to be guarded against, lawless Mexicans and bandits of almost every shade and colour, so for protection we had our rifles within reach at all times. We had been travelling and working almost constantly day and night, and were completely worn out. I had leaned my head on Morley's shoulder and taken a nap. When I awoke I complained about a rifle that rested between the two men on the front seat. The butt of the gun was against the dashboard, the muzzle pointed at my head. Well, nobody paid any attention to my protest. Morley said that he would go to bed, and, leaning his head upon my shoulder, was soon sound asleep. One of the men moved, the rifle was discharged, and the bullet went crashing through the sleeper's head."

Here Mr. Robinson fished a little brass cylinder from his vest pocket. "This," he said, "is the shell that held the cartridge that killed Morley sixteen years ago."

The wound was not instantly fatal. Morley got out of the wagon and walked round in front of the team; then gazing about like a man looking for a place to lie down, he said, addressing his companions, "Boys, this is hard," and that was the end of a man who wanted only the opportunity to become one of the nation's heroes. It was with a heavy heart that his chief and friend pushed the great work in Mexico to completion after Morley's death.

He had begun this work in 1881, and in 1883 went to Paso del Norte to take charge of the construction of the Mexican Central from that point to Fresnillo, Mexico, a stretch of seven hundred and fifty miles. It was here that Mr. Robinson beat the world's record in road making. From one end, with only the stakes set to begin with, he built five hundred and twenty-five miles of track here in three hundred and sixty-five days, which, with possibly one exception, has never been equalled in any part of America, and certainly nowhere except in America would men be in such a hurry.* Before the entire line was completed, however, this Napoleon of the construction camp was called to the capital to take charge of the construction of the line that was being built from that end. He was to build north four hundred and fifty miles to meet the builders (the work he had just left) coming south seven hundred and fifty miles from El Paso. Here, as in Sonora, the constructor was at a great disadvantage. Everything had to be brought in *via Vera*

* The Manitoba system was extended in 1887 through Dakota and Montana, 545 miles, between April 2 and October 19.—THOMAS C. CLARKE, *The American Railway*.

Cruz, just as the material for the Sonora line was brought from New York and Europe to Guaymas, in the Gulf of California. This included everything used in the construction of the road, as well as the equipment needed for the work. Cars and locomotives had to be brought in sections, shipped to the City of Mexico over the Mexican Railway, and then set up.

Mr. Robinson found the greatest difficulty in teaching the natives how to use the plough and scraper, the standard tools of the American road makers. They could make a hot *tamale* in an ice wagon, catch a running horse by the left hind foot without ever missing it, but they could not fill a scraper or hold a plough. They could not so much as pilot a mule to water along a beaten trail.

A man can build a railroad with red ants if he has enough of them and can keep them at it. Nobody knew this better than Robinson, and when his hopes and patience failed he piled the ploughs and scrapers in a heap, turned the mules out on the cacti, and set his ants to work. They were of all colours—red, black, and a few white, but mostly yellow. The natives were all right. Round and round, up and down, to and fro they went, slowly, to be sure, but surely, and the grade began to grow. Each man carried a basket or bucket, filled it, climbed the dump, and emptied it at the point indicated by the dumping boss. The Mexicans came in great numbers now to seek work, and they were all employed. As the days went by the line grew longer, and in a little while new lines had to be formed in new places. At the end of a week hundreds of grademakers were piling up the grade. In less than a

month the line was literally alive with these human ants. Red ants, fleece-clad, from the mountains, naked ants from the Terre Coliente, and black ants from Sonora, where the road was finished, found the work and swelled the army.

It was Robinson's way never to be beaten. He had undertaken to build four hundred and fifty miles of road, and to meet the south-bound builders at that distance from the capital, and he meant to do it.

"How many men have we now?" he asked one day, looking at the squirming mass of humanity that covered the right of way for a mile or more.

"Fourteen thousand," said the boss of the bosses.

Robinson gave a low whistle, but kept on hiring men.

The average wages paid to this bucket brigade was thirty-one cents a day. To be sure, this half-civilized band would not take cheques; they had to have their pay every Saturday night in the coin of the country, which was silver. The biggest piece of silver in use then was one dollar.

"We were obliged to pay this army every Saturday night," said Mr. Robinson, "and it took from five to ten large wagons to carry the silver from the north of the work to the various working camps. Of course, these pay-wagons were closely guarded by Americans, and it seems wonderful to relate now that not a single dollar was lost or stolen during our entire period of construction. I do not think that this would have been the case had the same conditions existed in the United States."

This was probably owing as much to lack of enterprise as to the "honesty" of the outlaws of that republic. The transportation facilities were not sufficient to tempt an enterprising train robber.

Notwithstanding all the disadvantages under which the south end was constructed, Robinson's army of ants reached the pass of the north in time to connect with the rails that were reaching from Texas toward the capital of Mexico.

Upon the completion of this second line built by him in Mexico, the general management of the Atlantic and Pacific Railroad was offered to Mr. Robinson, and accepted by him. A year later he was again at the old work, but this time with burros and blasters in the Rocky Mountains.

Mr. J. J. Hagerman, of Colorado Springs, a man of great business capacity, commanding an unlimited amount of capital, had persuaded English investors to join him in building the Colorado Midland Railway—a foolish piece of road making, the casual observer would say, for it began at a summer resort and ended at a flag station.

This was the first standard gauge line to cross the Rockies amid the eternal snows, and naturally the resourceful Robinson was asked to take the job, and he accepted it. There was some wonderful engineering here, some expensive bridging and tunnelling. Hagerman Tunnel, which pierces the range near timber line, is twenty-six hundred feet long, and cost the tunnel company two hundred and fifty thousand dollars. The locomotives used were of necessity heavy to climb the heavy grades. The new grades gave way at times,

making funerals frequent among the enginemen for the first year or so.

The Colorado Midland and the Denver and Rio Grande, which was then building its standard line *via* Leadville, ran together at Glenwood Springs on the Pacific slope. The cañon was narrow there. There was scarcely room for two, so the two roads combined and built what was called the Rio Grande Junction Railroad from that point to Grand Junction, where both connected with the Rio Grande Western for Salt Lake and the Pacific coast.

The Denver and Rio Grande managed to control the construction, and, as it was then handling all the transmountain traffic through Colorado, it was in no hurry to complete the new line and divide business with an unwelcome competitor. The work dragged. The Midland people protested, but there seemed to be no help for it. Material intended for the joint road, but still the property of the narrow gauge, would disappear at the moment when the contractors were ready to put it in place. A large shipment of steel for the new line was lost. After weeks of "tracing," it was finally located on the Denver division of the Rio Grande, where Superintendent Deuel had spiked it down for the new heavy equipment of the road, which was about to widen out to a standard gauge.

In time, however, the standard gauge was completed; the Rio Grande Western had already been widened, and the Colorado Midland began to figure in transcontinental business, exchanging at Colorado Springs with the Chicago, Rock Island and Pacific, and at Grand Junction with the Rio Grande Western.

A few years later the new road, which must have been built to sell, was absorbed by the Santa Fé. In the general shaking up during the panicky days of the '90s the Santa Fé lost it, and just now Judge Philips, of the United States Court of Appeals, is writing an opinion in the suit brought by the tunnel company to compel the Midland Company to use its hole in the ground at Hagerman Pass, which the reorganization company has refused to do.

After completing the Colorado Midland, Mr. Robinson became president of the San Antonio and Arkansas Pass Railroad. Two years later he went to the Santa Fé as vice-president of that great system. In 1896 he became president of the St. Louis and San Francisco Railroad, with headquarters at St. Louis, where he now resides, still in the prime of life. The doors of his office and his private car are unlocked when he is there. He is extremely modest and generous, but a Napoleon in the management of men. Looking at the man to-day, one would never guess that he had spent the best years of his life in the rough and riot of the uncurried West.

Pick up a pebble at the mouth of a mountain stream and note its perfect polish. That comes from countless knocks and tumbles in the turbulent rill that has carried it along, and finally landed it on the shore of the broad, calm river.

CHAPTER XIX.

THE OPENING OF OKLAHOMA.

IF all the other booms that have passed over the West could be collected and concentrated into one big boom, it would look like the opening of Oklahoma. Hundreds of gifted writers have attempted to paint a pen-picture of that wild time and have failed, and here will be another failure.

Oklahoma was opened for settlement on April 22, 1889. This territory was about ninety miles long from north to south and sixty miles wide from east to west, extending from the north bank of the South Canadian River northward to a point about five miles south of the present town of Perry. The history of the many attempts made to place this land on the market is remarkable. For a number of years Sidney Clark, Payne, and others had laboured to secure that end. During the winter of 1888-'89, when it became reasonably certain that a date would soon be set for the opening, people began to gather from all over the United States, and when the date was named, about April 1st, they came with a rush. All winter long the United States Government kept a guard and tried to keep out intruders, commonly called "sooners," but nearly all of the professional land grabbers made frequent trips and spied out the land pretty thoroughly before the

opening, so that they would know where to go for the best lands. A few days before the opening troops scoured the country and beat every bush to make a clean sweep, but, notwithstanding this, many men hid in the hollows and secure places, ready to grab the coveted claim at noon on the 22d. Very few attempts were made to enter from east or west. The Government refused to allow the people to remain on the Cherokee Strip, a body of land sixty-five miles wide, extending all along the Kansas line, so those from the north gathered mainly at Arkansas City, a few thousand at Hunnewell and Caldwell, and about five thousand at Purcell, on the south.

Every good saddle horse commanded a high price. Racing stock sold for two or three hundred dollars a head. Most of the runs on horseback and by teams were made from the south, as no horse or team could traverse the Cherokee Strip as quickly as the train. Everybody entered from the north *via* the Santa Fé and Rock Island Railroads, except, of course, the "sooners."

No conception could be formed of the number of people that were to be handled by train. Assistant-General-Superintendent Turner, of the Santa Fé, who was in charge of that territory, estimated that the company would handle ten thousand people out of Arkansas City and two thousand out of Purcell. Thousands of gaunt-faced men haunted the yards day and night, trying in every way to buy information or bribe the railroad employees into smuggling them into "the first train." Unscrupulous confidence men, dressed like switchmen, sold "tips" to tenderfeet, and at one time

the detectives employed by the railroad company found a "Beauro of Information" running "wide open," where inside intelligence was sold like liquor, producing equally bad results. Men, made drunk by thinking upon a single subject, forgot that all men were not for sale, and openly offered the railroad employees fifty, a hundred, and sometimes a thousand dollars for the faintest hint as to which train would be the first to leave.

Newspaper correspondents were at first almost as eager for information, though not bidding quite so liberally. To quiet the reporters, Superintendent Turner gave each a card signed with his initials, and told them to keep still until they were ordered to get aboard. If their car appeared to be at the end of the last train, they were to say nothing. In short, they were to leave everything to the management, and they did.

Seeing the great temptation to which the men were being exposed, the railroad officials called the conductors and engineers together and made it plain to them that the well-known rules of running men "first in, first out," would be off for that day. They would all make a trip, and as nearly as possible in the proper order, but no man could say with any degree of certainty whether he would be first out or last. All the trains would leave and all would arrive within the space of an hour or a little more, and as all employees would be expected to remain on duty at the end of the run, it could make no great difference how the men went out. After that the train and enginemen could say frankly that they knew nothing about the make-up of the trains.

It is to the credit of the employees, in view of the great temptation, that no complaints were ever made that the men had sold information that was false, or that they had sold any information at all.

As the hour drew near for the departure of the first train the scene was indescribable. Thousands upon thousands of men tipped their pale, anxious faces back and peered with wild, wide eyes at the driver of an engine that came slowly into the yard. If the locomotive touched a train or a car, instantly a thousand men were on board, with hundreds hanging on the steps and clinging to the windows. Hundreds of these "homesick" people had not slept for nights or stopped to eat a good meal for days. Presently a yard man would cut the engine off, and as it moved slowly away, parting the multitude with its pilot, the train would give up its human freight.

After much unnecessary switching, the trains were all made up and the engines began to be coupled on; but when a train appeared to be overloaded, the locomotive would be detached, the switchman lectured for having coupled the wrong engine, and then the mob would fall off. When the officials had jockeyed in this way until no man could form any opinion as to which train would leave first, what appeared to be the last train pulled out with not less than a thousand men and a few women on board.

The ten trains were run from Arkansas City, the first one starting at nine o'clock, so as to reach the north line of the Oklahoma country at twelve o'clock noon. It was followed by the nine other trains at intervals of ten minutes. Each train consisted of ten

cars; no car was loaded with less than one hundred people, and occasionally contained one hundred and fifteen. Ten thousand and six hundred tickets were sold from Arkansas City. No reduced rates were made, as the Santa Fé controlled the business. The first car on the first train was a baggage car, in which were placed seventy-three newspaper men, representing the leading papers of the United States and some correspondents from Europe. There was intense interest all over the world, because this was the largest territory that was ever thrown open for settlement in an hour.

Probably five thousand people, seeing the great multitude swarming about the train like red ants at the opening of a hailstorm, turned away. Hundreds of people there would unquestionably have passed elsewhere as lunatics. As often as a train started to pull out, loaded to the roof, hundreds of men would leave a reasonably safe place on another train to race after the already overloaded one that was leaving. Often when these excitable voyagers returned they would find the place they had quitted occupied by another. And so the mad rush went on until the last train had pulled out, leaving thousands of people behind.

The first train arrived at the line five minutes before noon, waiting for the notice to start, which was a rifle shot fired by the officer in command of the troops guarding the gateway. When the first train had run about a quarter of a mile, a young woman crawled through a coach window and dropped to the ground, but immediately jumped to her feet, unhurt, ran a short distance to clear the right of way, and drove her stake, making the first claim. After that,

on every hill, where the speed of the train was reduced, people dropped off as a good claim caught their eye. The settlers on later trains did the same, and many a conflict arose, in which the weaker party was compelled to go farther away from the railroad to look for another claim. All the trains ran to Guthrie, which was the centre of the excitement, as it was expected that the Capitol would be located there. The ten trains made an exciting jam, and a city without a board or a nail was planned in an hour. People located in streets without any regularity, which caused hundreds of lawsuits and fights later on.

There was such a mob at Purcell that the general superintendent who was handling the movement from that end concluded that it would not be safe to try to run two trains. So he coupled all the coaches—twenty-two—in one train, using two locomotives, and brought out twenty-five hundred people, the train being literally covered, men even hanging on truss-rods and outside of windows. The roofs of the cars were black with people. Half of them dropped off at Oklahoma City. There were only about eleven thousand good claims of one hundred and sixty acres each in the territory. It is presumed that every one of these was occupied before 3 P. M., and that thirty thousand people were in the territory before night.

The signal for the start had been given by officers of the United States army stationed at intervals along the border of the promised land. Where there were cannon, cannon boomed out the signal, but at most places a shot from a rifle or a pistol told the waiting multitude that it was time to go.

A party of railroad and Government officials had gone in on a special train, and stood in the silent waste waiting for the signal. Out over the rolling plain they looked and saw no living thing. It seemed incredible that a city was to be born there and a graveyard started within the next one hundred and twenty minutes. "Time!" said one of the officials, snapping his watch, and from afar over the billowed plain came the low boom of a cannon, and instantly a man sprang from the ground not a thousand yards away. Wherever the men on the special looked, men could be seen springing from the very earth. Some were running this way and some that way, while others, kneeling in the native grass, drove a stake to mark a home.

A few minutes later could be seen the smoke of the first section hurrying to the end of the track. When the train stopped, a man, running with all his might, saw Lawyer Quinton, of Topeka, standing alone near the special train, with his hands in his pockets. Now a man who could stand perfectly still at such a moment was a man to be trusted; so the newcomer, still running, threw a hand-satchel at the lawyer, shouting, "Keep my grip!" and fell upon a corner lot. Another man, seeing all this, turned and dropped his bundle at the lawyer's feet just as a fat grip hit that gentleman in the spine. It was easy to follow the drift of things now. Those who ran could read that the lawyer was a check stand, a baggage room, a public warehouse *pro bono publico*. In less than three minutes he had three hundred pieces of baggage, all of which had come to him as greatness comes to some men. As the last train stopped, Mr. Quinton strug-

gled out over the wall of grips and bundles that people had left in his care as they hurried on to a new home. Thousands upon thousands of pieces of baggage lay there unmarked, and some of it was never claimed, for the owners had gone to help people the new graveyard.

The next problem was that of feeding this vast crowd, which took with it nothing but a sandwich, and a stake to mark its claims; and after that came the problem of getting it material for shelter. At this time the road had a stock rush. Pasture cattle were going from the south at the rate of ten to twenty trains a day. The stations were few and far between, with limited side-track capacity. There was but one telegraph wire, and freight of all descriptions lined every side track from Arkansas City to the Missouri River. The first day they moved nothing but food; the next day food and material for shelter. After that it was a scramble. Everybody was clamouring for his freight, and great care was necessary to see that each town got its share of food to keep the people from starving. Every man that got a good claim telegraphed his people in the East. Enough messages were filed to keep ten wires busy. Hundreds of people left that night on returning trains, either disgusted because they had no section, or to go after their goods and family if they had secured a claim.

The event was unique, and unparalleled by any previous event of the kind. It was a perfect day. The grass was green, the trees in leaf, and as most of the people were from the North and East, and had just left cold weather, the appearance of the land seemed

to them to justify the name, "The beautiful Indian Territory."

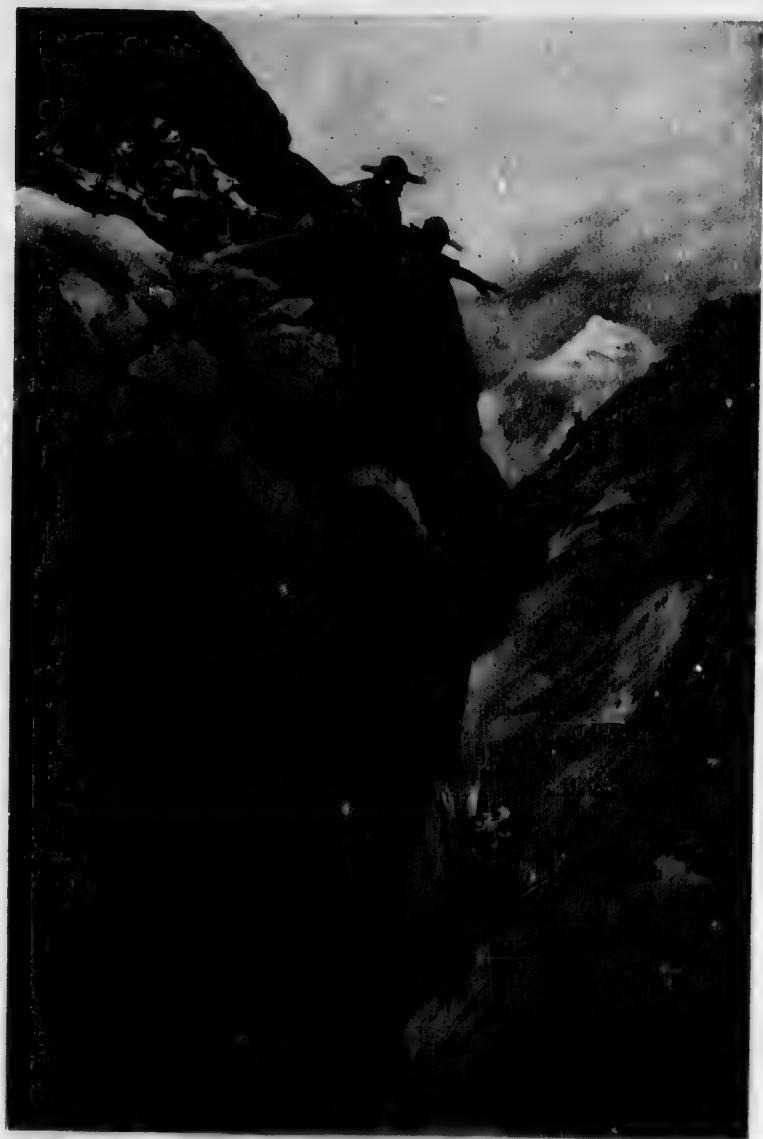
In September, 1893, the Cherokee Strip was opened, probably with nearly as big a crowd and a more exciting race from the north line, because it was sixty miles long, and the race was mostly on horseback and by team, but many of the people had had previous experience at the Oklahoma opening, and were better prepared.

It is impossible to describe the enthusiasm and the longing expectation that seemed to govern almost everybody. Many of the railroad employees were half crazy to secure claims, and in one instance a freight train was abandoned on the main track between stations by every employee except the fireman. Other trains were abandoned at stations by half their crews. For days before the opening men sneaked in on freight trains or paid their fares through the territory on passenger trains, and dropped off while the trains stopped at water tanks, only to be run out by the officers or Indian scouts employed by the Government for that purpose. In most cases the scouts stripped them of their arms and food, compelling them to leave at once.

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In the mountains.
(A phase of the engineer's cañon work.)

CHAPTER XX.

THE RAILROAD ENGINEER: A FEW ILLUSTRATIONS SHOWING HOW HE HANDLES THINGS.

A MAN with one leg over a fence listening for a dog—that's the engineer. He wants to locate the line across the farmer's field, but he does not know how the farmer and the dog are going to take it. When night comes on the pathfinder will sleep where his path pinches out, and he will not be welcome.

When he has passed out of hearing of the school bell and the bulldog, wild animals and Indians will block his trail, for there is no civilization beyond the end of the track. All the way from the Atlantic to the Pacific he has been forced to fight, leaving along his new-made trail heaps of bleaching bones that tell of his trials, and marvellous feats of engineering that speak of his skill.

We have seen him climbing mountains over cog-ways and switchbacks. Caught in a rising cañon, he doubles his trail, "loops" his line, and goes ahead again. When a narrow pass pinches out, he climbs to the top of the cañon wall, lets himself down by means of a long rope, and writes on a rock what he would put on a stake if he were able to drive one. We have seen him in a narrow gorge hanging between the

granite walls an iron frame made thousands of miles away.

Bestriding the stream, he bridges it lengthwise, and the train above drowns the roar of the river. By turning this way or that, he saves his company hundreds or thousands of dollars. All the money put into a new enterprise is at his mercy, and upon his judgment alone the success of a great undertaking often depends. If a tunnel is to be driven, it is his business to find the softest possible place in the mountain. He is expected to know not only the things on the earth, but to give pretty good guesses as to the things that are under it. If he orders piling to be driven in a stream, the road builders are reasonably sure that the waters of that river are not washing the bedrock. If a corporation could be said to possess a conscience, it would be the chief engineer. He holds the secrets of the company, and he will not tell. Without appearing to want it, he obtains all the information obtainable, and goes his way. He asks few questions; a great deal of his education comes to him by absorption. He will sit up all night and listen to the stories and experiences of an old, illiterate mountaineer, but he wants no advice from a man who can read. It is not fine theories he is looking for, but facts, the things men learn from the hills. If he finds it hard to determine whether a certain gulch ought to be bridged or filled, he consults a cowboy, a scout, or a squaw. He is modest, retiring, almost to the point of being unsociable. He is always in earnest. Sometimes he will jest and joke, and if he happens to be Irish, which is not often the case, he will tell a story, for the Irish

are the mirth-makers of the rail. There is an Irishman in eight out of ten stories you hear on the road.*

The railroad engineer is never finical. He rises fresh and hungry from his bed in the desert, eats his bacon and bread, washes it down with black coffee, and makes an even start with the sun. If need be, he sleeps in a wagon, on the back of a mule, or goes without sleep. If an important pass is to be taken and held against a rival company, he lays down his line and his life, and you can not take the one without taking the other. His honour, his loyalty—his life, if

* Here are two sample stories that originated with the Irish:

A big boulder dropped into the Black Cañon, cut the 107 from her train, and put her and her driver, Tom Ryan, to the bottom of the Gunnison River. Hickey, the roadmaster, jumped from the train, ran down to the water's edge, and fished Ryan out. "Tom," cried Hickey hysterically, "are yez hurtted? Oh, spake to me, Tommy, spake!"

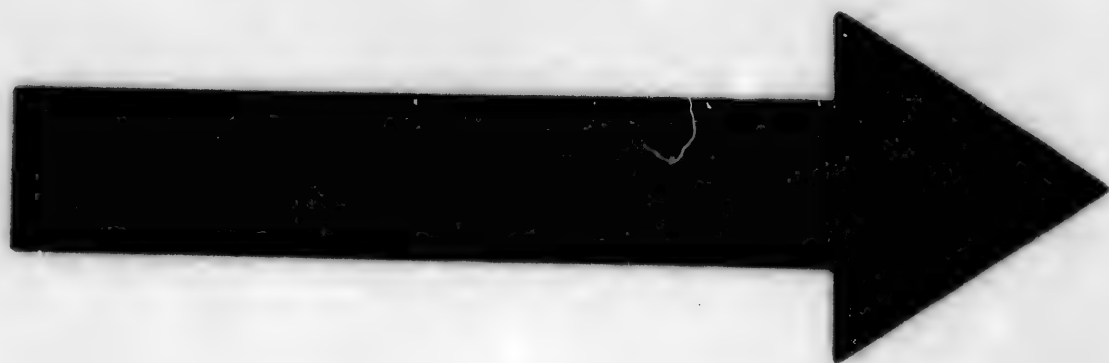
"Now, phwy the devil should I be hurtted?" was the response from the dripping driver.

"Thet's so," said the roadmaster, turning away in disgust; "I wonder ye got wetted."

One sultry midsummer day, when the hot winds were sighing and the weeds were dying on the Western plains, the general superintendent of the Santa Fé and his assistant were inspecting track from the rear of a private car. Between the two general officers sat the ruddy roadmaster, twirling his thumbs and singing softly to himself, "Jerrie, go ile th' kayre." The very sight of the man, perfectly healthy and happy, was irritating to the sneezing officials, who were watching the receding rails over their handkerchiefs.

"Say, Moriarity," one of them asked, "did you ever have hay fever?"

"No," said Mory; "me rank isn't high enough."



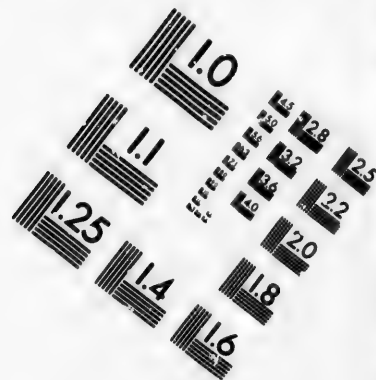
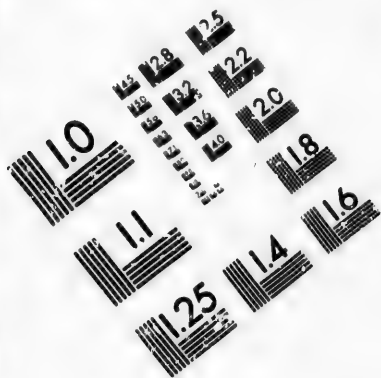
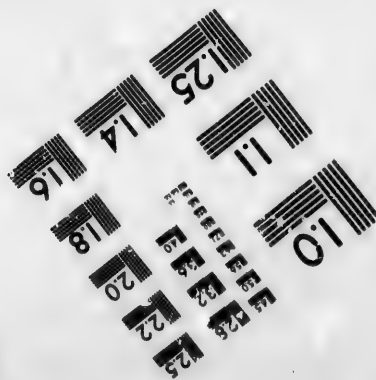
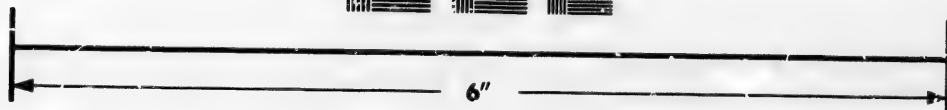
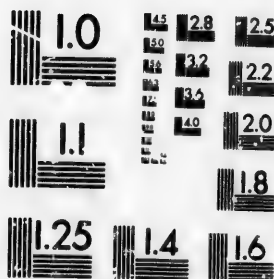


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need be—is pledged to his employer. He takes himself seriously, never underestimating the importance of his work.

You will see him on the banks of a swollen river that threatens the right of way, weaving stout willows into a great carpet, sinking it in the stream, risking his life, but saving the roadbed. If the current is too swift and deep to do this, he will make an immense seine of heavy woven wire, spread it along the margin of the river, and wait patiently for the water to undermine the net, which falls over the crumbling bank and stops the wash.

The chief engineer knows more men who do not work for the company, and fewer who do, than any other general officer on the road. If he thinks he is right, he will fight or quit, but he hates to compromise. He dislikes to move a stake when it has been driven to stay. Once, when the present chief engineer of one of the Western roads was locating a line in Missouri, he was asked to change the stakes, and refused. The proposed road at this point lay across a meadow, passed up by an old orchard, and from there gained the summit of a long, low ridge. The stretch across the meadow was a charming bit of roadway, giving the future engine driver a long tangent and a good run for the hill. When the stakes had all been set a young, unshaved man came out and asked that the road be "moved over a piece." The engineer explained that it would be impossible, as that was the best point to pass over the ridge. The man insisted, and finally the engineer would not discuss the matter, explaining that the company would indemnify

the owners of the property when the proper time came.

The man went back into the house, got an old squirrel rifle, came out, and pulled up the stakes. The engineer started back to remonstrate, but at that moment the young man's mother saw what was about to take place, and hastened to meet the engineer.

"Can't you move your road over a little piece, mister?" she asked.

"I don't see why I should. If you feel aggrieved, the company will pay you what is right; my business is to locate the line," said the engineer, glancing angrily up the slope where a lean young farmer sat nursing his rifle. "What does that blackguard mean by sitting there on a stump with a gun?" he went on.

"Why, he ain't no blackguard—that's Nip. Name's Nippolian; we call him Nip."

"Well, I'll nip him if he gets funny."

"Oh, no, you won't. I wa'n't afraid o' that. What come over me, as I see you startin' 'cross the meadow, was maybe you had a mother that dotes on you as I dote on Nip, an' how hard it would be for her to have you come home that away, an' her a-blamin' us, maybe."

"What way do you expect me to go home?"

"Well, if you persist in drivin' them stakes *there*, you'll go home dead."

"Well," said the engineer, "I'll do anything in reason, but I won't be bluffed by that ruffian."

"I keep a-tellin' you he ain't no ruffin—he's jist Nip, that's ail. You see, we've been here purty nigh always—Nip was born here—an' when the grurillas come an' called paw out an' shot him, we burried him

jist whar he fell, an' we've always kep' it as a sort of reservation, Nip an' me, an' he's determined you sha'n't disturb it, that's all."

"Then you don't object to the railroad?"

"Lord o' mercy, no! We want the road, but we don't want you to disturb paw's grave, that's all."

"Come," said the engineer, "we'll go to see Nip."

When they had come up to the stump the big engineer held out his hand. Nip took it, but kept his eyes on the stranger.

"Here it is," said the woman, touching a low stone lightly with her foot.

"I see," said the engineer; "we can miss that easily enough."

He moved a mile of road. From that day forward until the road was finished, and long after, the widow's home was the stopping place for the engineer.

The railroad engineer often succeeds where failure seems certain, and his work then remains as a monument to his memory after he has passed away; but of the many daring schemes that fail the world knows nothing, or, if it ever hears, it soon forgets. One of the wildest, most romantic, and daring enterprises that have ever been undertaken in the West was the attempt to survey and build a railroad through the Grand Cañon of the Colorado. If all the wild gorges in the West were melted down and recast, they would fall short of making another Grand Cañon. Its awful grandeur belittles everything else.

The Colorado River begins with the confluence of the Green and Grand in southeastern Utah, so deep down in the twisted hills that until a few years ago no

man knew how or where the great stream originated. Explorers have attempted to ascend it from the Gulf since 1540, but soon find themselves at the foot of a foaming cataract, and turn back. Scores of men have gone in at the top of the cañon, but were never heard of afterward.

In 1869 Major Powell undertook the exploration of the cañon with nine men and four boats. The Indians, looking on, said that he would not come back. No Indian had ever gone through Cataract Cañon and lived to lie about it, and they would not believe a white man capable of succeeding where the red man had failed.

This expedition left the point where Green River station now stands, and started down the Green on May 24th. Their greatest difficulty in that small stream was to find sufficient water to float them, but almost immediately after passing the point where the Green is joined by the Grand the river became reckless. Swirls and eddies and dips and falls were encountered hourly, and it was not long before some of the crew began to curse the day that tempted them into this gorge of death. They would have deserted gladly, some of them, but the walls were already steep and high.

At the first opening one of the party escaped to the mountain. After encountering the terrors of Cataract Cañon, three more half-crazed men walked out into the desert. They never came back. They fell into the hands of some Indians who were full of the story of an outrage that had been perpetrated lately by white men, and who accused these wanderers of the crime.

The three explorers protested their innocence, and begged to be brought before the chief. When the chief saw the men, he demanded to know how they happened to be in the country. Now the white men told the truth, which is sometimes stranger than fiction. They said that they had come all the way from the Green water in a boat.

"You lie!" cried the chief; "no man can do that," and the three explorers were massacred.

On August 30th Major Powell, minus two boats and four men, landed at the mouth of the Virgin River, nearly a thousand miles from the starting point. His description of his journey down the Colorado is an interesting bit of graphic history, and we who have had glimpses of the Colorado are able to imagine that he came out with a grand collection of stirring sensations and nerve-testing thrills. And this is the cañon through which a party of Denver men proposed to survey and build a railroad. If the road is ever built, the tourists can have here, in a thousand miles of travel, more wild, grand, and awful scenery than can now be had from a car window in a journey round the world.

Aside from its scenic value, the proposed road was to connect by a short line the Rocky Mountain region with the orange groves of the tropics. It was to pass through a cañon where the wild mingles with the weird, and where the grand touches the awful. It was to be built along the foot of rocky walls whose summits were kissed by the clouds. It was to wind and twist with a great river that is a raging, turbulent thing of swift rapids, foaming cataracts, treacherous eddies, and fatal falls.

The first attempt to survey the cañon made by these adventurous men was under the patronage of Frank Mason Brown, John C. Montgomery, and others. The party left Denver on May 23, 1889, headed by Mr. Brown, who had been chosen president of the company. The chief engineer who signed for this dangerous task was Robert B. Stanton. Other members of the original party were Messrs. Heslop, Hansborough, Richards, and MacDonell, with two negro servants.

A few letters were received by the families and friends of the various members of the party, and finally a "good-bye" from Green River. Then they were off on their perilous trip. The next news received from the expedition was most hopeful, and stated that they had passed successfully about three hundred miles of the most dangerous part of the river, "which is one series of cataracts and rapids, walled on either side by cañon walls at times rising to six thousand and seven thousand feet in height. The descent is so great that at places for miles in length the water is lashed and churned to a foam of creamy whiteness. Notwithstanding this, the journey of three hundred miles was made in safety, and with only the loss of two boats."

From this point the party was reduced to eight men. With a fresh supply of provisions, they proceeded on the dangerous journey. Their conveyances consisted of three boats, each fifteen inches deep and thirty-two inches wide. After leaving the Grand River the party passed through what is known as Cataract Cañon, in which there are seventy-eight rapids within a space of a few miles. These were passed in safety.

For one hundred and fifty miles farther down the stream was more navigable and easily passed, but after they had left Lee's Ferry some distance behind a terrible cataract was found, which is spoken of by Major Powell, in his report of his journey in 1869, as being sixteen feet high, and one of the most terrible whirlpools he ever saw.

After the cataract this message from Mr. Stanton reached the families and friends of the adventurous explorers. It was dated at Kanab, Utah, July 22, 1889:

"President Frank M. Brown was drowned in the Colorado River, in Marble Cañon, July 10th, by his boat being capsized while running a rapid. He was thrown into a whirlpool and unable to get out of it, while the other men in the boat were thrown into the current and carried down about six hundred feet and landed. All the other boats of the expedition went through the rapids safely, and my boat reached the point where Mr. Brown was thrown half a minute after the accident happened, and less than five seconds after he sank for the last time. Five days after, while working our way down, another boat was driven against the cliff, and two boatmen, Peter M. Hansborough and Henry C. Richards, were both drowned before assistance could reach them. It was impossible to recover any of the bodies."

CHAPTER XXI.

AT THE FRONT.

IN order to develop more definitely the various phases of the engineer's work in the field and of construction camp life, I have obtained permission to reprint the following magazine article published some ten years since: *

"It was merely as an observer and writer that I first studied life at the head of the rails in the Black Cañon of the Gunnison in 1882. At that time the Denver and Rio Grande was building an independent route westward to Salt Lake City. The train, drawn by two heavy engines, wound slowly over the Marshall Pass, rising two hundred and seventeen feet in the mile, surmounting tier after tier of track. From the height of ten thousand feet there was a slow descent to the plains and the mining town of Gunnison. This was then the end of regular travel.

"A construction train went onward daily, and presently I found a place among the ties on a flat car. The first 'station,' Kezar, repeated the tale of Jonah's gourd. It was a group of board shanties with canvas roofs, a wretched huddle of groggeries and boarding

* Ripley Hitchcock in *The Chautauquan*, June, 1899.
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tents. It had appeared in a night when the headquarters of the advancing railroad were fixed there for a few days. But the railroad had passed on, and Kezar was left to languish while a new terminal city made its boasts, only to be abandoned in turn. Presently the hills along the river grew higher and more precipitous, the mesas gave way to crumbling crags, and with a farewell shriek from the engine the train thundered out of sunshine into gloom. Frowning cliffs rose straight up from the track on one side, and on the other the gray river brawled along the foot of the opposing precipice. Mountains of reddish gray rock towered aloft on either hand, veined with white, and seamed with fissures worn with the passage of ages. Here great boulders literally overhung the track, and again there were dark caves or fleecy cascades above, or the grim cañon walls were almost exactly vertical from their giddy summits to the ribbon of steel and the river at their base. The Black Cañon of the Gunnison is known to tourists in these days, but they can not know the difficulties of railroad building through a gorge only wide enough in places for the river. Here, as in the Royal Gorge, the surveyors picked their way through on ice in the winter. Here, when the work of construction was begun, men, and even horses and wagons, were lowered down steep slopes by ropes, and workmen wielded drill and hammer hanging by ropes until they had blasted out a foothold.

"I stopped at the boarding train, which stood opposite a rock tower a thousand feet in height. The sunlight fell upon its pinnacle, gilding a huge profile carved by Nature, but the cañon depths were all in



The rush for dinner.
(A boarding train on the Plains.)

shadow. Here was the temporary home of four hundred men. A little beyond was the working train at the very end of the rails. All along the dump or road-bed gangs of men were busily unloading and placing ties and rails, or levelling the surface with exactness. Presently a whistle blew. Six o'clock had come, and the men, leaving their tasks, scrambled aboard the flat cars and the train rumbled back to the 'hotel on wheels.' Long before the cars stopped the men were hustling each other, like a flock of stampeded sheep, in a wild race for supper. The seats were limited in number, the labourers many, and none had any idea of waiting for 'second table.' A toilet was a trifling matter. The next morning would be time enough for soap and water. There were swarthy Italians, Irishmen with carrotty locks, men of a score of nationalities, begrimed, tattered, gnawed at by the appetite given by labour in the bracing Colorado air, all brethren in a purely animal instinct, a ravenous desire to satisfy hunger. They swarmed into the old freight cars which had been fitted up with long planks for benches and tables. On the latter were tin pannikins, iron knives and forks, and pewter spoons. Mounds of coarse bread, pans of some strange stew, and pots of rank black tea appeared and disappeared before these lusty trenchermen. Words were not wasted. Every act had a bearing upon the business in hand. A railroad navvy hungry and tired has 'no time for nonsense.' One by one they rose from the table. There was nothing to be said. They had been fed, and for the time they were content. But presently the social instinct reasserted itself. They lighted black

pipes and drew together. Some rudely mended their garments in company, and others produced dirty cards or gathered to talk. A few clambered into the narrow board bunks in the cars and drew their blankets up over aching limbs. It was a glimpse of a hard, cheerless life, but as I turned to go back to the construction train some one struck up a rollicking Irish song, and others joined, until the cañon walls gave back the chorus.

"There were special dangers in this work aside from ordinary accident and exposure. A little time before two men were swept away by the rapid current of the river; others had been killed by the overhanging rocks. Yet the dangers of cañon work would be preferred by many to an open country harried by the fierce Apaches of the Southwest and northern Mexico, which I visited after leaving the Gunnison country. A year or two before, the famous Apache chief, Victorio, and his bloodthirsty followers, had raided the valley of the Rio Grande. One contractor told me of a chase which lasted for three days. At night he and his men travelled as best they could. In the morning they chose an advantageous place, made a corral of their wagons, and lay behind them all day while the Indians circled about at a distance, exchanging shots, but never venturing on a direct attack. It is not hard to imagine the harassing strain of these days, but happily the white men escaped the fate of others whose graves are in the lonely sand hills to the south of El Paso del Norte.

"The end of the Mexican Central's rails was two hundred miles below the frontier when I entered Mex-

ico in 1882, and for this distance travel was simply a question of securing a permit and waiting for a construction train. But less than a year before eight brave men had laid down their lives to open the way. For forty miles below Paso del Norte stretches the desert known as 'The Sand Hills.' At its southern limit I saw four rude crosses outlined against the sky, mute, lonely witnesses to the fate of *avant-coureurs* of civilization. In June, 1881, four engineers were riding down through the sand hills when the sudden crack of Winchesters told of the remorseless Apaches. On the hill marked by the crosses the white men made their last stand. There was no chance of help or rescue. Surrender meant only ghastly torture, so they fought side by side behind a heap of sand until every cartridge was gone. Had they been English soldiers in an African campaign sent against Zulus who were fighting to protect their homes, England would not have allowed their heroism to be forgotten. But they were only engineers, representing not aggression and conquest, but the advance of civilization, and so they laid down their lives and were forgotten, while you and I come after them in safety.

"It was with difficulty even then that I learned their names—Fordham, Leavitt, Grew, and Wallace. It was characteristic of the life that no one had appeared to claim Wallace's money and papers, which were found buried in the sand beneath his corpse. Like many another frontier hero, the story of his life died with him.

"Life at the head of the rails in Mexico had a picturesqueness of its own. There was the element of his-

torical interest. Our construction train passed down the valley, close beside a bluff where heaps of earth recalled the battle of Sacramento. At the time of my visit the construction camp was about fifteen miles north of Chihuahua. We rode to the end of the rails on flat cars loaded with ties. As the rails were laid the flat cars of the working train were backed down and other materials kept within easy reach. On a side track stood a boarding train, but many of the men were living in tents, and all about us the smoke of their fires rose in the clear, dry air, which brought out the very seams and fissures of the mountain peaks along the distant horizon. Most of the contractors had their own 'outfit,' a kitchen and storage tent with simple utensils, tents for themselves, containing rude bunks or occasionally cots, and sometimes tents for their men. By boarding their men, and perhaps selling light supplies, they realized a double profit. If prices were high, there was an excuse in frontier duties averaging about one hundred per cent on manufactured articles. On canned goods, always in demand, the import duty was seventy-two cents a kilogramme, and the vessel, whether glass or tin, was taxed at the same rate. 'What do you think those pickles cost me?' asked a contractor in whose tent I dined that day. Their cost was fifty dollars a half barrel. Moreover, there were municipal duties to be paid before imports could enter a city. But there have been changes since then. Two civilizations—the American and the old conservative Spanish—have adapted themselves sufficiently at least to avoid constant friction. But at that time the American railroad builder was

almost as truly a pioneer as Cortes among the native Mexicans.

"The contrast of types was a curious study. Beside the stalwart American or Irishman in faded flannels and high boots, the swarthy Mexican, his scanty dress concealed beneath his striped serape, squatted before his fire, lazily rolling cigarettes as he cooked his *frijoles* and *tortillas*. Every morning Mexicans from Chihuahua rode up to the camp and stared in passive wonderment at the railroad, the *ferrocarril*, which most of them had never seen before. There they sat like the gayly coloured images sold in their cities, until a sudden shriek from the engine drove their horses wild with fear. As railroad labourers the lower class Mexicans were more picturesque than useful, but they soon learned some of the railroad's advantages. The engineers told remarkable tales, like that of one of the men who tied a venerable bull to the track at night and appeared, after the inevitable result, with a claim for the loss of a herd of cows.

"I rode into Chihuahua on horseback, and returning after a week with a companion, we drove to the camp, slept in a freight car, and next morning drove on to a Mexican ranch near Encinillas. Here an engine and caboose stood on the track waiting orders. There were no regular trains, and we ran from one siding to another, feeling our way as best we could, or, by lying by, broiling in the sun. Night came on while we were thus labouring onward. We had had nothing to eat, and there was nothing short of *Paso del Norte*. But presently the engineer came back to us and revealed a can of chicken and some bread. It

was characteristic that he should divide his rations among six hungry men—characteristic of Western railroad men.

“These trifling details may help to illustrate the unsettled conditions of life and travel before the formal opening of a road, but the life in Chihuahua was luxurious compared with the experiences which followed in Sonora. The Sonora Railroad was built northward from Guaymas to the frontier, where it joined the line built down from Benson on the Southern Pacific. There was a gap of about twenty miles in September, 1882, when I reached the frontier. The northern rails ended at Line City, a typical camp, which consisted of a dozen shanties and tents and as many mountains of empty beer bottles. There was no work in progress at that end, and life was therefore comparatively quiet.

“When the ambulance of the chief engineer came up, there were doleful tales of Apaches. Some of the Chiricahuas had been raiding along the frontier. Two white men had been killed on the road a week before, and nobody ventured far among the hills without fearing the sudden swoop of these Ishmaelites of the Southwest. Stories of the disappearance of herders and the loss of cattle came in from the ranches. It is a strange experience for one from the country of law and order and police and the commonplace to find himself among primitive conditions, a participant in the conflict between civilization and savagery.

“So far as my own journey was concerned, the danger was too slight to be considered seriously. The great construction camp was less than twenty miles below, and there was travel enough by that time prac-

tically to insure the safety of the road. It was due to custom more than actual danger that the driver of the ambulance kept his Winchester by his side; but there was one passenger who saw danger lurking behind every bush. He was a Hebrew merchant from Guaymas, one of the many thrifty traders of his race who have followed close behind the pioneers to establish trading houses throughout the southwestern country. My companion carried a little black bag, which no one was allowed to touch, and this he was clearly prepared to defend with his life. He had equipped himself with a new Winchester and six-shooter, and the only real danger of the trip lay in his manipulation of these unwonted weapons. After the mules started, he undertook to charge the magazine of the Winchester and to load the revolver. As the ambulance swayed from side to side, the muzzle of the rifle now explored the driver's ribs, and again stared threateningly into my face. Of the danger of a cocked gun or a sudden or severe blow on the hammer this man of peace seemed to know nothing.

"So we drove on past the little Mexican custom-house with its pompous tenant, among hills dotted with live oaks, over the 'summit,' and down through the beautiful Magdalena Valley, passing contractors' camps and swarthy Mexicans at work on the dump, until we reached the end of the rails at Agua Zarca. Here were sunshine and colour in place of the gloom of the Black Cañon. Mexicans and Yaqui Indians worked about the construction train, clad in light colours, vociferating and gesticulating with Southern animation, picturesque in spite of themselves and their

prosaic handling of ties and rails, just as the rhythm of the Spanish tongue preserved its musical cadence in spite of the shrill voices.

"At night I went out into the camp. All about us the camp fires blazed among the chaparral and mesquite, lighting swarthy faces with seemingly sinister eyes gleaming under broad sombreros. There was a time when the scene would have been described in a phrase—the brigands of Salvator Rosa. It was a fascinating sight, this camp in the firelight, with figures sitting and standing, always draped in the gay serape which the meanest peon wears with native grace, but the glitter and glow had vanished in the gray morning. I was called at four o'clock to take a train southward, and when I left the car the air was very cold. The camp fires had burned low. In that uncertain gray light even the serapes had lost their warmth of colour.

"A little later, and the local colouring asserted itself more vividly than before. The train, consisting of two passenger cars and a dozen freight and box cars, stopped at Magdalena, where one of the perennial *fiestas* had just closed, and two hundred Mexicans and Indians waited on the platform. There was colour enough and to spare in that company of gaudy serapes, sombreros glittering with gold and silver, and the garish red blankets of the Yaquis. But the baggage! Huge rolls of straw matting—*patitas*—used as beds, stone mortars for grinding corn, wicker crates filled indiscriminately with cheeses and dirty clothes, curiously painted trunks, ancient enough to have carried the wardrobe of Cabeza de Vaca, sacks of pomegranates, demijohns of mescal, and an indescribable mixture of

pots and kettles and household articles. Most of the forenoon was occupied in painting station numbers upon the various 'lots,' to use the phrase of the auctioneer. Most of the afternoon was enlivened by the hospitable Mexican baggagemaster, who freely distributed the mescal, pomegranates, and melons of his passengers among a group assembled in his car.

"This was one of the phases of early railroad life in Mexico, and another less amusing was the Mexican desire to interfere with or make victims of American railroad men. One station agent told of arrest and imprisonment because a Mexican had left his blankets on the station platform until they were stolen. A brakeman boasted of a dozen arrests. A conductor whom I sought to aid in Hermosillo was accused of murder by witnesses who swore that he not only put a man off the train, but even held him beneath the wheels. The 'victim' was produced in court, but even this failed to secure the conductor's acquittal, and for attempting to see him I myself was arrested and escorted to jail by a squad of soldiers. In my case the thing was a trifle, for release with apologies from the general and the Governor followed within half an hour, but many of the railroad men suffered severely. The story of early railroad building in Mexico is a story of misunderstanding, of imposition, and of petty outrages. The Americans were not without sin, but in many cases the trouble could be traced to Mexican jealousy or greed.

"The next year I followed the trail of blood which marked the progress of the Atlantic and Pacific Railway across northern Arizona. There may have been

more violence than usual, but no Western railroad has been built without bloodshed. At Coolidge, Ariz., five desperadoes fortified themselves in a log cabin and sallied forth to harry land and people, until they were surrounded and shot down. Holbrook, Winslow, Williams, all had their era of crime. At Cañon Diablo a murderous plot to rob the pay car was fortunately frustrated. Flagstaff * was quiet enough at the time I 'outfitted' there to visit some newly discovered ruins of cliff-dwellers, but of the fourteen graves in the rude inclosure beneath the pines, eleven were the graves of men who met with violent deaths. So the records might be continued, although at the time of my visit the rails had reached the Colorado River, most of the construction hands had come back, and few besides the bridge builders remained. So on the Northern Pacific, which I travelled over the same summer, there were only the ruins of construction camps and some lonely graves in the mountains to tell of the army of men suddenly gathered together only to vanish like the morning dew. Their work was done. After them came the magnates and politicians, whom I saw feasting, like Belshazzar, in Portland, Ore., while the telegraph operators were writing the story of falling stocks in New York and impending disaster.

"The recruiting of these armies of labourers is a peculiar calling. The contractors enlist men through advertisements or agents in the nearest cities and ship them in gangs. The men usually bring their blankets,

* Among the many changes since this article was written, none is more curious than that which has made Flagstaff known to the world as the site of Mr. Percival Lowell's observatory.

and sometimes modest kits. They are boarded and usually furnished with sleeping places in cars, tents, or shanties by the railroad company, the construction company, or the contractors, as the case may be. Their wages probably average a dollar and a half a day, although any skilled labour, of course, commands more. Their board may be estimated at about four dollars a week. With the exception of the Italians, they save little. When the road is built, some of the better men secure permanent employment. The others, perhaps a thousand miles from their last home, obtain return passage from the railroad company if possible, or beg and steal rides on freight trains, or travel on a 'tie pass,' an ironical phrase for the privilege of walking on the track. Some of them re-enforce the army of tramps constantly moving backward and forward along the railroads. It is a small minority, in all probability, who are the better for their taste of the strange, wild life at the head of the rails.

"Western railroad building has been an essential factor in our national development, as every one knows, but few have any knowledge of railroad exploration, of the venturesome work of engineers, and of the railroad construction camp. A recklessness born of freedom from restraint and the splendid exhilaration of the Western air has soiled many pages of the record, but very many of the crimes have been due to the bloodsuckers and parasites, the gamblers, thugs, thieves, and rumsellers who infest railroad camps. If there are dark pages in the history, there are many others golden with stories of unselfishness, of steadfast courage, and of heroism."

CHAPTER XXII.

THE RAILROAD AND THE PEOPLE.

"Every man in the land is interested daily and constantly in railroads and the transportation of persons and property over them."—*Judge* THOMAS M. COOLEY.

DARING engineers, backed by equally daring capital, have pushed the railroad always far in advance of civilization and business, so that we who are still on this side of fifty have always had the railroad. The people have not always made the railroad, but they have always shown a disposition to dictate to it, and in the few instances where the General Government has lent its credit the people have insisted upon the right to run the road. This is particularly true of the people who live along the line that has received governmental assistance. True, as taxpayers they have contributed no more to the work than others who live thousands of miles away and have received all its benefits, but they insist upon the right to enter the manager's office and put their feet on the desk. They have been known to insist upon free transportation and special freight rates, on the ground that the people made the road, and that "we are the people."*

* "I found people in Nebraska who were possessed with the idea that the Union Pacific was constructed for, and should be

Certain inferior brands of very cheap politicians have deemed it their duty to array the people against all corporations, especially against the railroads. This feeling finally got to be so general in the West that the employees of the railroad actually came to regard the company which gave them a livelihood as a common enemy. Fortunately for itself more than for the corporation, the great army that operates the road is beginning to think for itself, and has stopped taking its opinions blindly from others.

A branch of industry which directly furnishes employment to two million people, and indirectly to two millions more, ought to be encouraged. The railroad can not be called a monopoly. Wherever there is too much business for one road, a competing line is sure to be built, and the laws passed by the people prohibit the consolidation of competing or parallel lines. As one result of paralleling, aided by adverse legisla-

operated mainly in deference to, the wishes of that section, and who actually believed that their State should be consulted by the managers before any improvements were made, innovations introduced, or extensions pushed forward. In the minds of such people, the question whether the road had done more for the State than the State had done for the road never seemed to rise. But those who take an unreasoning and, to my mind, a most unjust view of the conduct of the Union Pacific, are exceptions to the rule. Among the most advanced thinkers of Nebraska a different feeling exists and different opinions prevail. They point out with just and pardonable pride the wonderful strides which the young State has made since the Union Pacific Railway was constructed."—*Hon. JESSE SPALDING, to the Secretary of the Interior.*

tion, there are in the United States nearly one hundred thousand miles of bankrupt roads. The American railroad earns \$1,200,000,000 annually, and yet nearly two thirds of the mileage are in the hands of a receiver, or ought to be. Then why should the people combine against the railroad, which is not allowed to combine even to save its own life? To be sure, no patriotic citizen of this expanding republic would wish to see the railroad run the Government; and yet there is no more reason why the Government should run the railroad than there is for its interference with packing houses, flour mills, or the millinery business. Those who advocate the Government ownership of the railroad point with pride to the splendid management by the Government of the railway mail service. Well, that service is the direct result of the enterprise of and sharp competition between the various railroad systems.

When young William H. Vanderbilt told his father that the Post Office Department wanted the company to build and equip twenty postal cars to run over the Vanderbilt system (the New York Central and the Lake Shore) between New York and Chicago, and that the department had promised to support the road, to give it all mail matter originating at or coming into the New York Post Office, provided the same could be delivered at its destination by the Vanderbilts as quickly as by any other line, the old commodore shook his head. "Do it, if you want to," he said, "and if Chauncey wants it, but I know the Post Office Department. They will break with you within the year."

The commodore was a bad guesser. They "broke" within a month.*

President Scott, of the Pennsylvania, not to be outdone by his splendid rival, now put on a similar service, whereupon Congress, seeing the rivalry between the two systems, and thinking perhaps that the roads would keep it up, began the parsimonious work of cutting down the already inadequate compensation. And then the roads most interested withdrew the service.

Here is a fair illustration of the treatment accorded the railroad. It shows also the difference between politics and business enterprise. The people are apt to argue that if a train is going over the road once a day it might as well go quickly, and have done with it, but it costs something in fuel, in the strain on machinery, and the rack and wreck of the roadbed to run at a high rate of speed. The people do not know, or else they forget, that the resistance of a train is four times as great at sixty miles an hour as it is at thirty miles an hour, and the amount of steam generated and power exerted must be eight times as great in the one case as in the other. The comforts of travel have increased continually, while the cost has decreased. The fare in the Rocky Mountains, in little, narrow, cramped cars, used to be ten cents a mile; now it is from two and a half to five cents in a palace car.

* "Within three weeks, despite the indignant protest of Colonel Bangs, the mails of three States were ordered to be taken from this and given to another road."—EX-POSTMASTER-GENERAL JAMES.

Private enterprise, with a few exceptions, has created within three quarters of a century a splendid system of railroads in America, the rails of which, it is said, would reach all the way from the earth to the moon; whose locomotives and cars, coupled together, would make three solid trains across the continent from New York to San Francisco.

Every safety appliance that money can buy or inventive genius can turn out has been applied to the locomotives, cars, and signal systems, until it is almost absolutely safe to-day to travel by rail. More people perish annually by falling out of windows than are killed in railroad collisions or wrecks. Travelling night and day, a man ought, according to statistics, to get killed once in every four hundred years.

Every stake stuck in a proposed road is a prospect hole, every station along the line a mine, and every new road a Klondike to the country through which it passes. All the gold in the world would not buy a half interest in the American railroad, which earns as much money annually as all the silver and gold mines in the United States yield in ten years. From the spring to the autumn of 1887 a little army of ten thousand men, commanded by General D. C. Shepard, added eighty millions to the wealth of our country by the rapid construction of five hundred and forty-five miles of road in Dakota and Montana. This estimate is on the principle that every dollar invested in railroad construction is worth ten dollars to the country through which the road passes. The American railroad is a big thing. It employs one out of every twenty of the working people you pass. Its

freight work is equal to the moving of one hundred thousand million tons a mile every year. If one man did all the travelling, he would make fourteen thousand million miles annually, whipping the tail lights of his train round the earth at the equator every fifteen minutes, but it would take him eighty thousand years to do the year's work, with no stops for meals.

The eight hundred independent companies that run the American railroad pay their employees nearly half a billion dollars a year, but pay interest only on thirty per cent of its securities; the other seventy per cent earn nothing.

As early as 1835 the American republic had over half the railroad mileage of the world. In all the West the railroad has been the pioneer. Although the Federal Government, States, and in a few instances counties and municipalities, have helped the railroad, it has, on the whole, been discouraged by the people. The good people of the State of New York as late as 1858 were holding public meetings and resolving that the New York Central had no right to compete with the Erie Canal. Verily the people have made some bad breaks in their efforts to keep the railroad down.* One of the good results of the great evil of the civil war was that it promoted the growth of the railroad. Men then began to think of the nation, national needs, and national development. The war removed all local

* "It is less than thirty years since a convention at Syracuse, representing no small part of the public sentiment of New York, formally recommended 'the passage of a law by the next Legislature which shall confine the railroads of this State to the business for which they were originally created.'"—A. T. HADLEY.

jealousy of interstate traffic. Out of the necessities that arose came valuable ideas, which were afterward developed, perfected, and used by the engineers who made the railroad in the West.*

The most beneficent function of the railroad, it has been truthfully said, is that of a carrier of freight. It moves a ton of wheat a mile for a cent. The American railroad makes it possible for the hungry millions of the crowded European cities to break bread oftener than they used to break it before the road was built. The railroad has helped to reclaim hundreds of millions of acres of land in the West and Northwest, and made homes for people at the rate of over half a million a year for the past half hundred years. It would be impossible to print in one book a complete list of the blessings that have come to the people of the United States as a direct result of the American railroad, or to attempt to record all the wrongs, big and little, done to the railroad by the same blessed community.

* "I firmly believe that the civil war trained the men who made that great national highway."—*General SHERMAN.*

"Necessity brought out during the war bold structures, that in the rough were models of economy and strength. In taking care of direct and lateral strains by positions of posts and braces they adapted principles that are used to-day in the highest and boldest structures. And I undertake to say, that no structure up to date has been built which has not followed those simple principles that were evolved out of necessity, though reported against during the war by the most experienced and reliable engineers of the world."—*General DODGE, Chief Engineer, Union Pacific.*



Monument to Oakes Ames at Sierman, Wyoming.

CHAPTER XXIII.

THE BEGINNINGS OF THE EXPRESS BUSINESS.

THE idea of taking charge of money and other valuables, becoming responsible for them *en route*, and delivering them in good order at their destination, originated with William Frederick Harnden. He had been a passenger conductor on the Boston and Worcester Railroad, later ticket agent in the Boston office, and no doubt the many calls he had from people who were willing to trust him with their shopping helped him to appreciate the necessity of a public errand boy on the road. After three years in the ticket office Harnden visited New York. He wanted outdoor employment. "Do errands between New York and Boston," said his friend James W. Hale, who ran a newsstand called the Tontine Reading Room, and was agent for the Providence steamboat. People used to dump small pieces of freight in the Tontine and ask Hale to send them on. In time the bankers and brokers got to know him, and would go down to his place at the corner of Wall and Water Streets, hand him letters and bundles of greenbacks, and ask him to give them to some one who was going to Boston, Providence, or wherever the package happened to be billed for. In this way Hale saw the need of a messenger, and ad-

vised Harnden to go into the business. This was early in 1839. On the 23d of February of the same year an advertisement in the Boston papers stated that W. F. Harnden had made arrangements with the Providence Railroad and New York Steamboat Companies "to run a car through from Boston to New York and *vice versa* four times a week."

He would accompany the car himself, the notice stated, "for the purpose of purchasing goods, collecting draughts, notes, and bills."

The original valise in which Harnden carried all his freight for months was, a few years ago (and may be still), in Cheney and Company's express office at Boston.

The express started on the 4th of March, and on the 21st the Boston Transcript gave Mr. Harnden editorial notice, stating that the express had been found "highly convenient to those who wish to send small packages from one city to the other. It affords us much pleasure to recommend the express to the notice of our readers."

Harnden appears to have got in touch with the editors of the great dailies of New York and Boston at once, for on the 14th of May the editorial page of the Transcript made the following acknowledgment: "We are indebted to our friend Harnden, of the Package Express, for the United States Gazette (Philadelphia) of yesterday."

A man carrying packages, or even messages only, was not called a messenger, but an "express." *

* "Some little idea of the opposition that exists among New York editors may be formed, when we mention that so great was

In a year Harnden had built up quite a business. His brother Adolphus was one of his best messengers, and yet, according to Stimson's History of the Express Business, "Adolphus Harnden was by no means a fast young man."

In less than a year the founder of the express business had a foretaste of the risk he was running in engaging to carry and deliver money and other valuables.

The first disaster came, as historian Stimson puts it, "on that bitter cold, dark, calamitous night, the 13th of February, 1840." That night the steamer Lexington, with thirty thousand dollars in specie for the Merchants' Bank of Boston, on accounts of the Government, and twenty thousand dollars in "greenbacks" and other valuables for various persons, burned off Long Island. Only four out of the one hundred and fifty passengers and crew were saved, Adolphus Harnden being among the victims. W. F. Harnden, the founder, died five years later, six years after starting the business.

the anxiety to get the start of each other and have the credit of being out first, that three expresses were employed by the printers of that city to bring on President Jackson's message. The Courier and Enquirer, speaking of it, says: 'It was delivered yesterday at 12 o'clock, and conveyed from thence to Baltimore by express, from Baltimore to Philadelphia by steamboat, and from Philadelphia to this city by our express, in six hours and twelve minutes, notwithstanding the bad situation of the roads. We would have been able to lay it before our readers at an earlier hour, had not our express between Baltimore and Washington lost all his copies. As it was, we have incurred an expense of three hundred dollars.'"—*Boston Transcript*, Dec. 11, 1830.

In 1840 Alvin Adams laid the foundation for the business that employs an army of men to-day, and whose noisy wagons add materially to the deafening "downtown" din in nearly every city in the United States. He wanted to drive a stage, but the agent told him that he was "meant for better things," although the New England stage driver was a man of importance, often driving his own team.

Failing to find employment on the road, young Adams became a produce merchant, failed, and started in the express business with P. B. Burke, under the name of Burke and Company.

Harnden's friends said Adams was an interloper; his own friends said he was foolish to want to divide the business that would scarcely support one man. Burke soon became discouraged. Adams kept on, and in three years bought a horse.

The beginning of the American Express Company was when Henry Wells and George Pomeroy, following the star of empire and the Indian, started an express west, between Albany and Buffalo.

That was in 1841. Like Burke, Pomeroy quit; but Wells kept on, paying his fare on the railroads, steamboats, and stages that made the journey to Buffalo in three nights and four days.

Nearly all the great companies whose faithful messengers ride near the locomotives up and down and across the continent, standing in the open door, receiving freight, and road agents, and cold on their lungs, taking part in wrecks and head-end collisions, had a humble beginning.

The baggage express business was originated by a tailor named Arnoux.

All there was of "The Westcott Express Company" in 1851 was a one-horse wagon with "Bob" Westcott sitting close up to the crupper. To-day this company handles nearly a million pieces of baggage per year.

In 1852 Henry Wells, who had been Harnden's original agent at Albany, with W. G. Fargo and others, established what is now the well-known firm of Wells, Fargo and Company, of California.

It had cost seventy-five cents to send a pound of freight from New York to San Francisco in 1849 and 1850. The rate was still sixty cents, but Wells, Fargo and Company began business by cutting it to forty cents. Among the first board of directors were D. N. Barney, afterward its president, and at one time president of the Northern Pacific Railroad, and Benjamin P. Cheney, who as a boy had been a stage driver, then proprietor of the stage; as a man a railroader, then proprietor of the road, and whose son, Benjamin Cheney, of Boston, is now a director and part owner in a number of Western railroads.

At the close of the civil war there were a number of express companies, nearly all prosperous. Some one said they were too prosperous, and organized "The Merchants' Union Express Company," capitalized at twenty million dollars. The openly avowed mission on earth of this philanthropic institution was the utter ruin of the business of all existing companies, which, though they were competing sharply for business, were thrown in a heap, in the literature put out by the new organization, and called "the old monopoly."

At the end of two years, having sunk seven million dollars and demoralized the business to some extent, the Merchants' Union failed, and was absorbed by the American Express, with William G. Fargo as president of the consolidated company.

During the first five years that Wells, Fargo and Company did business in the West they carried fifty-eight million dollars' worth of gold dust into San Francisco. No other express company in the world has suffered so much at the hands of road agents. They began business in the West when the West was wild. They ran, in the early days, not only an express business, but stages also, and an extensive banking business as well.

It was at the door of Wells, Fargo and Company's stages that the picturesque but always polite bandits of Bret Harte used to doff their caps to timid passengers. Their stage roads ran over the shoulders of bleak and desolate mountains, in the shadows of frowning cliffs, and along the tunnels that had been chopped through the forests of California. Here that mild murderer, the road agent, whose only redeeming quality was his politeness, who did not swear or smoke, in this life, did his devilish work.

In fourteen years he had stopped four trains and three hundred and thirteen stages. Upon thirty-four occasions the stage failed to stop. During this period four drivers and two messengers—those fearless guards who set themselves on the front seat as a target for the outlaws—were killed. The robbers shot seven horses and stole fourteen from the teams. Despite the fact that the robbers always had the advantage, the

brave guards succeeded during this time in killing sixteen, while the Vigilance Committee hanged seven. The total amount taken in fourteen years was nearly a million dollars.

Later, between 1875 and 1883, a single man, with a low, musical voice and a sawed-off shotgun, held up the stage of Wells, Fargo and Company twenty-eight times. . In view of the fact that the State and the express company had each a standing reward for road agents of three hundred dollars, with an additional two hundred dollars from the Government when the mail was molested, this was shrewd work. The promptness with which all claims on this account have been met and settled has ever inspired and confirmed public confidence in the integrity and responsibility of the company.

The writer would not give fulsome praise to the express companies, yet it can be stated as a fact that they have been the most public-spirited of the great corporations of this country, and have managed their business and their employees with the least possible friction. Many of them (notably Wells, Fargo and Company) have made it a rule to collect and forward free of charge, money donated to communities suffering from contagious fever, flood, or fire.

In 1866 the express companies of the United States erected an imposing monument at the grave of Harn-den, in Mount Auburn, at Boston.

Of all the expresses, the most romantic and picturesque was the pony express, inaugurated by William H. Russell and B. F. Ficklin in 1860, absorbed later

by Wells, Fargo and Company, and abandoned in 1862, when the telegraph line was completed across the continent.

Although in existence but two years, the "pony" left its footmarks on the plains. It established stations which afterward became settlements, towns, and cities, and helped materially to determine the practicability of the central route for a railroad. It took telegrams and letters from the locomotive at St. Joseph, Mo., and delivered them to the steamboat at Sacramento, which carried them to the Golden Gate. To secure suitable horses and men, and to establish stations along the line, one man had gone overland, and another to San Francisco by sea, in the fall of 1859. Promptly at 4 P. M. on the 3d of April, 1860, a pony started from either end of the route. The Hannibal and St. Joseph Railroad ran a special train to its terminus, and the people of those outposts of civilization were wildly enthusiastic. Mr. Russell himself placed the first *mochilas* upon the saddle in a momentary hush, in which people plucked hairs from the tail of the pony, and when he bounded away toward the setting sun pretty girls threw kisses at the courier.

The path that the pony was to take lay due west from St. Joseph to Fort Kearney, up the Platte to Julesburg, thence by Fort Laramie and Fort Bridger to Salt Lake *via* Camp Floyd, Ruby Valley, the Humboldt, Carson City, Placerville, and Folsom to Sacramento. Weekly trips were to be made, and on the 10th the second pony started west. On the 13th, promptly at 4 P. M., the first pony from the Pacific landed at St. Joseph, the mail and messages having

crossed the two thousand miles of desert and plain in exactly ten days from San Francisco. Subsequently the time was shortened to eight days. At first the stations were twenty-five miles apart, but the men rode over three divisions. Later there were but ten miles between stations. Now the pony was put to a smart gallop at the start, and finished with neck outstretched like a racer coming under the wire. The light rider with his light load leaped from the pony as he braced his feet for the last stop, sprang upon a fresh horse that stood ready, prancing and pawing, with two men at the bit. In a little while forty fearless riders were racing eastward and forty westward at all hours of the day and night. Often when the rider reached the end of his run he would find the man who was to relieve him ill, wounded, or scalped, or perhaps he would find only the black ruins of the station, and would be compelled to push on. One rider is said to have ridden three hundred miles in this way. He had to be lifted from the saddle, and was unable to walk for some time.

The leading newspapers of New York and San Francisco printed tissue editions and sent them by the pony express across the continent. The pony express was not a success financially, although the "pony postage" on a letter that crossed the plains was five dollars; but it was picturesque and valuable to the public, and helped to blaze the way for the swifter, hardier steel of steel.

Thousands of people saw these swift riders flying like winged shadows across the continent, and among them one man who could paint for posterity what he

saw. That man was Mark Twain, and this is the closing paragraph of his picture:

"We had had a consuming desire from the beginning to see a pony rider, but somehow or other all had passed us, and all that met us managed to streak by in the night, and so we heard only a whiz and a hail, and the swift phantom of the desert was gone before we could get our heads out of the windows. But now we were expecting one along every moment, and would see him in broad daylight. Presently the driver exclaims, 'Here he comes!' Every neck is stretched farther and every eye strained wider. Away across the endless dead level of the prairie a black speck appears against the sky, and it is plain that it moves. Well, I should think so! In a second or two it becomes a horse and rider, rising and falling, rising and falling, sweeping toward us nearer and nearer, growing more and more distinct, more and more sharply defined to the ear; another instant a whoop and a hurrah from our upper deck, a wave of the rider's hand, but no reply, and man and horse burst past our excited faces and go winging away, like the belated fragment of a storm."

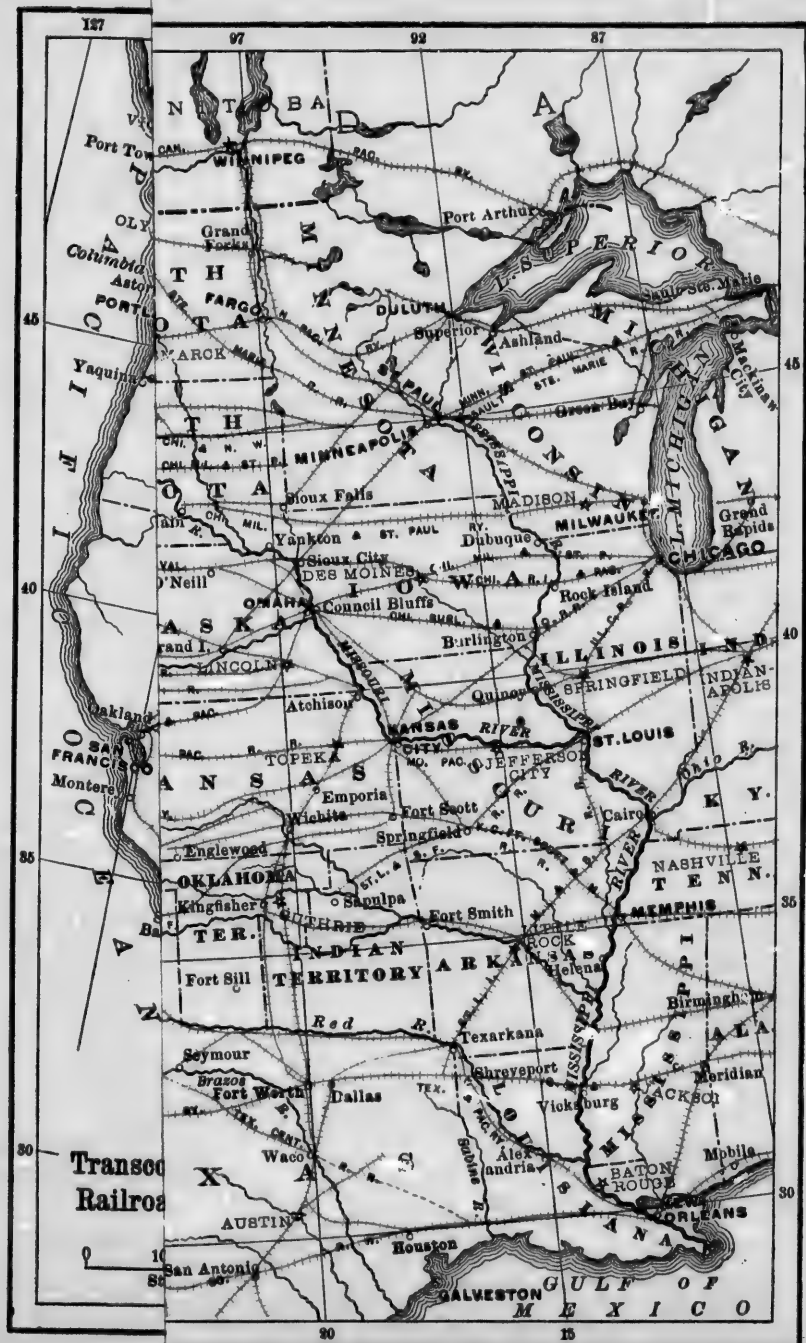
CHAPTER XXIV.

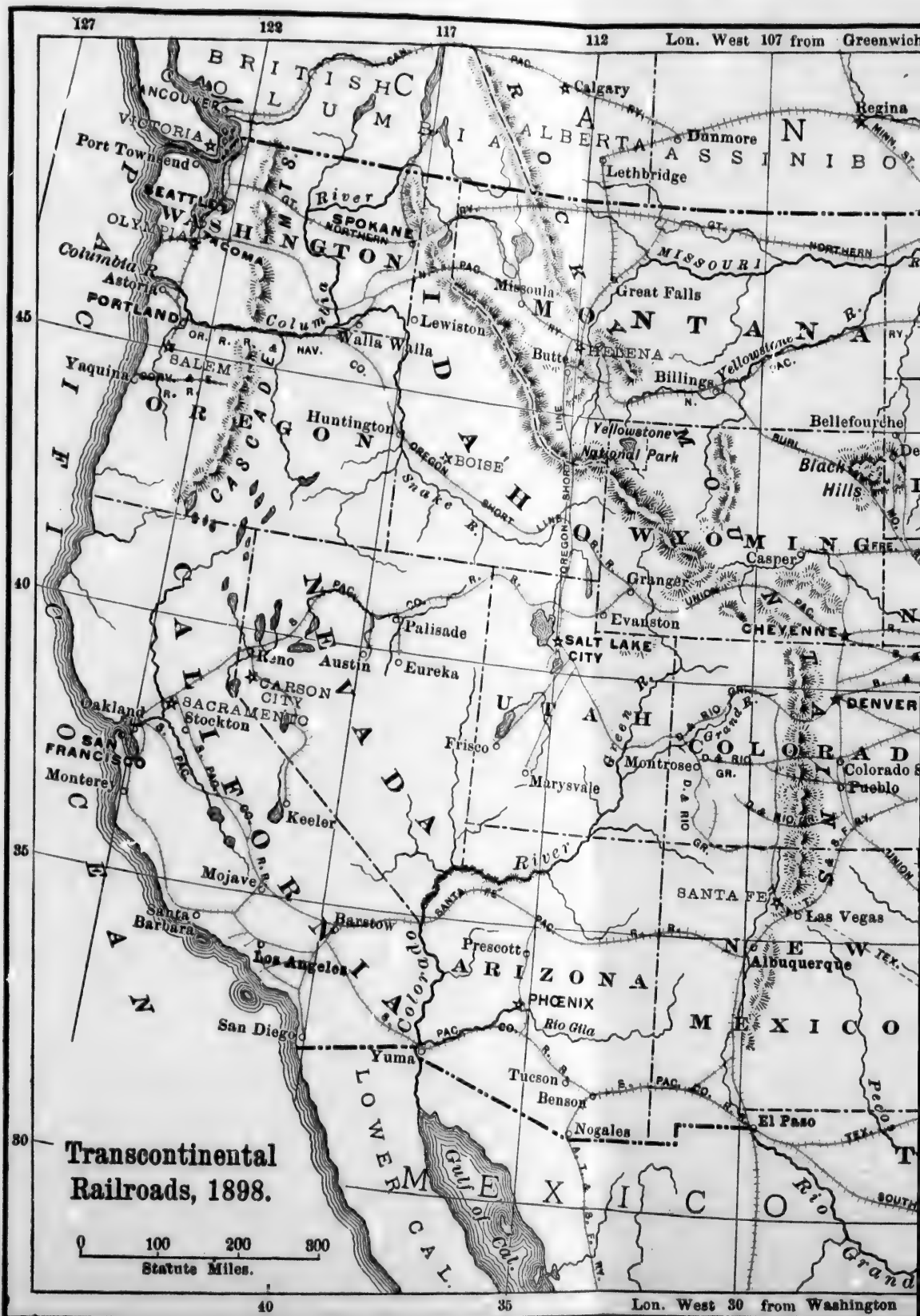
THE WEST TO-DAY.

THE West as it was in the beginning of this story is gone. That vast domain, miscalled the American Desert, is filled with homes, towns, and prosperous communities. The broad vales where the wild grass waved are green fields, meadows, orchards, and flower gardens. The dead, dry plains, that the pioneers found furrowed only by the deep, narrow trails made by the buffalo and the Indian, are crossed and checked and barred by bands of steel, and all along these new trails are thriving cities. The smoke of the machine shop, smelter, and factory drifts where less than a half century ago the signal fires of the savage burned to call the band to the slaughter of a lone settler or an emigrant train.

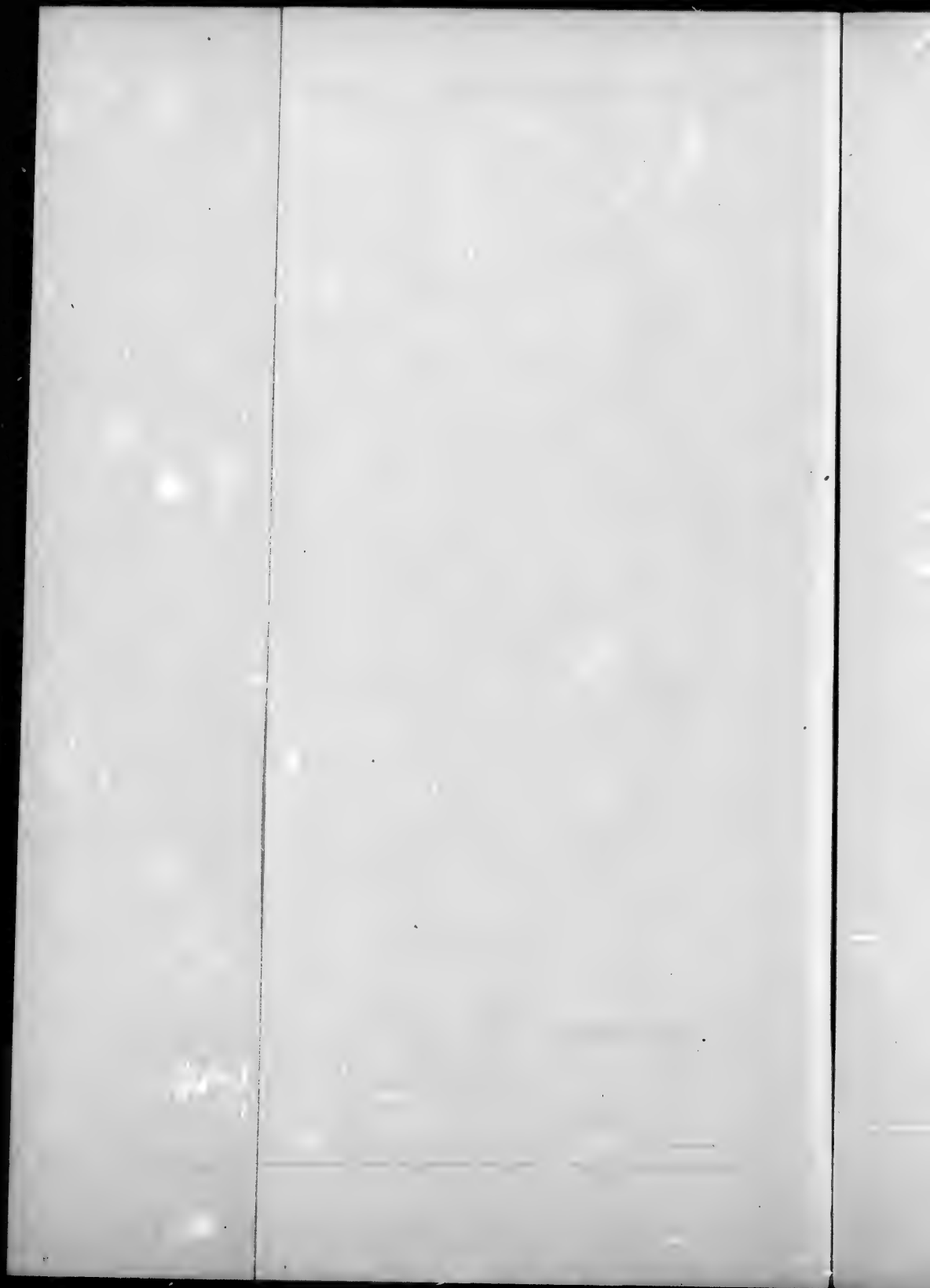
From a single mining camp in one small State situated in the very heart of this "unwatered wilderness" they take a million dollars in gold every month; and yet all the mineral mined within its borders in twelve months would not equal in money value the annual products of the few fields, orchards, and gardens that have been planted in the plains and valleys of that stony little State. Ninety-five per cent of the revenue of the Pacific railroads, projected and built for the

traffic of the Orient, comes from what is called local business. Following the smoke of the pioneer lines, dozens of systems of railroad have pushed their rails into this land, which at the close of the civil war was considered uninhabitable. The traveller bound for the Pacific coast has his pick and choice of a half dozen or more routes, which for speed and comfort can not be equalled under the sun save in America. It would be impossible in a single volume to give even a brief history of the many splendid systems of roads whose through cars, by close traffic arrangement, reach the Pacific coast States from Chicago, the great railroad centre, without change. In addition to the roads already mentioned, the traveller can take the Manitoba or the Sunset route, or his choice of a number of splendid roads between those extremes. Probably the most extensive and important of the newer roads whose rails reach out beyond the Missouri is the Chicago, Burlington and Quincy. The Burlington and Missouri River Railroad, a part of the powerful Burlington system, has done a great work in helping to people the "desert." It has almost an air line running from the capital of Nebraska to Billings, in Montana, with a branch north to that famed mining camp, Deadwood, in Dakota. The Burlington has also a splendid through line from Chicago to Denver, and the heart of the Rockies. Along these rails rush the magnificent trains that cover this one thousand miles in twenty-six hours; and side by side, neck and neck, are the Northwestern-Union Pacific trains, equally handsome, doing the same thing in the same length of time. The Burlington connects with the Denver and Rio









Grande at Denver, and by that line and the Rio Grande Western reaches Ogden, Utah, where connection is made with the Central Pacific for San Francisco.

The Chicago, Rock Island and Pacific is another of the important roads that has penetrated the plains. It takes through traffic *via* Colorado Springs, where it connects with the Colorado Midland, until lately a part of the Santa Fé system.

The Wabash, Alton, the Illinois Central, and other roads carry people *via* St. Louis, and sometimes as far south as New Orleans, and then send them flying across to the coast by the Missouri Pacific, or down over the Iron Mountain, and the International and Great Northern, and Texas Pacific, or by the Southern Pacific's famous "Sunset Limited."

Far to the north the Great Northern—"Jim Hill's road," as it is familiarly known among railroad men—takes traffic from any and all roads at St. Paul, and drives a paying business through what the early road projectors used to call "the frozen North." This is to-day one of the most prosperous roads in all the West.

Thus it will be seen that the West is now able to support a number of roads. True, they are not all making money, but they are all helping to settle up and develop a section of country that was once considered fit only for the home of the savage and a place for criminals to hide in.

It is only by comparison that we can arrive at a full appreciation of what the railroad has wrought in the West. When the Zion-bound pilgrims pulled their handcars across the plains and over the Utah desert

there were no trails but those of the buffalo. The trappers and hunters followed the streams, while the Indians may be said to have wandered aimlessly over the face of the earth.

Following the handcarts of the Mormons came the ox teams of Russell, Majors and Company, taking supplies to the army in Utah. And it used to take them from twenty to thirty days to drag the wagons from the river to Fort Kearney, three hundred miles.

A few years later the Overland Mail Company transferred their post coaches from the southern to this the central route, and then the dust began to fly. The stage coaches soon overhauled the pilgrims and the stage driver, and station hands, one writer tells us, began to make trouble for the Mormons by marrying "off wheelers," "nigh leaders," and "swing girls" out of the handcart teams.

After "roughing it" across the continent in one of these rock-a-bye wagons, Mark Twain wrote:

"How the frantic animals did scamper! It was a fierce and furious gallop, and the gait never altered for a moment till we reeled off ten or twelve miles and swept up to the next collection of little station huts and stables.

"At 4 P. M. we crossed a branch of the river, and at 5 P. M. we crossed the Platte itself and landed at Kearney, fifty-six hours from St. Joe, *three hundred miles.*"

Looking back at the bull team, that was simply flying.

A few years later an enthusiast who crossed the

plains on one of the early "Golden Gate" express trains wrote the New York Times:

"At 4 P. M. Sunday we rolled out of the station at Omaha and started on our long jaunt." Then followed a lengthy description of the ride, of the writer's first dinner "in one of Pullman's hotels on wheels," where they drank champagne at thirty miles an hour, "and never spilled a drop."

"After dinner," the traveller tells us, "we repaired to our drawing-room car and intoned that grand old hymn, Praise God from whom all blessings flow. Then to bed in luxurious coaches, where we slept the sleep of the just, and only awoke the next morning (Monday) at eight o'clock, to find ourselves at the crossing of the North Platte, fifteen hours and forty minutes out from Omaha, *three hundred miles*."

That must have made Ben Holliday's crack stage drivers wish they had never been.

How do they do this three hundred miles of desert to-day? The reader can enter a sleeper coupled to the fast mail leaving Omaha at 6 P. M. and stand almost at the foot of Pike's Peak, at the other edge of the "desert," when the sun is coming out of the plains on the following morning. At midnight he will have crossed the Platte, making the oft-travelled "three hundred miles" in six hours. That beats the early express as badly as that train beat the stage, or as the stage beat the freighters.

If you care to carry the comparison a few thousand years back of the bull team, it took Moses forty years to put three hundred miles of desert behind him.

Wonderful, indeed, are the changes that have taken

place out there within a third of a century. Far greater than any change in the character of the country and the mode and comforts of travel is the change in the character of the people who inhabit the far West to-day. One may not paint a pretty picture of the West in the days of the stage coach and the pony express. Here and there you meet a cattleman, a miner, a mining engineer, or a missionary, but a majority of the people you passed on the trail were criminals. The division superintendent on the stage line might be a gentleman or an outlaw, or both, according to the requirements of the division. When the stage stopped at a station, an assassin brought out the fresh horses, while perhaps a road agent off duty led the tired team away. When you sat to dinner at the stage station, you were apt to find a desperado at the head of the table. A half-breed raised on the warpath admired your beautiful hair, or silently cursed you for being bald, while he poured coffee. A horse thief carried the dishes away and threw the crumbs into the face of a filthy Goshoot Indian, who, until the stage line was opened, had been hanging on the edge of the desert waiting, along with that four-legged outcast, the coyote, for something to die.

These Indians were too indolent to band together. They had no tribe and no village. Too lazy to carry a bow and arrow, they slunk, filthy as swine, by the trail, competing with the vulture for a living. Other Indians, more ambitious, would lie in wait for the stage, which travelled day and night, and "rub the whites all out." And then there were always the white, or half white, savages—road agents and other assas-

sins. Highway robbery was practised apparently for pastime by some of these wolves. One division became so unsafe that the stage company was obliged to install a notorious outlaw in the office of division superintendent. He filled the position, and fitted into the community beautifully. Where there had been wholesale horse stealing, stabbing in the dark, and shooting by day, he quieted the "hands" down, and when he was removed to reform another division he left behind him a reorganized force, tranquillity, and a graveyard. Even the Indians, whole tribes of them, dreaded and respected this man, and the stage started by him usually went through on time. He was ever loyal to his employers, and if the outlaws, thieves, and murderers imposed upon or abused the few honest helpers employed about the station, he shot them down as he would have shot wolves among the stock. He was a most useful man in his day, but the constant bathing in blood hardened him. He took to drink and to indiscriminate killing of people who did not deserve it, who were not even in the employ of the stage company. Finally he tore up a summons sent him by a California vigilance committee, and they arrested him. He was counted one of the bravest men that ever saw the West, being utterly indifferent to danger. He had sent dozens of men into the unknown—some of them the hardest that that hard country had produced—but when his time came, when they put the awful noose about his neck, and he stood at the open door of death, he wept and begged, and perished miserably.

These unpleasant pictures are shown to bring the reader to a full appreciation of the condition of the

country when our hero, the locating engineer, entered it. There was no legal restraint there, no coroner's jury to come nosing around asking awkward questions. It was not that the West was bad, but because it was wild and wide, for many of the outlaws, like our superintendent, had been reared in the States, within the sound of a church bell, and had gone to the wilderness to lose themselves. The pathfinders who first went out to find a way for the railroad, and many who followed them, found the West a veritable hell, filled with wild beasts and wilder men. When the road makers followed with an army of workmen, many of them reckless, and some of them desperate, they built the temporary communities, full of lust and gold, that were so graphically and powerfully described by Mr. Stevenson. When these heroic pioneers pushed on toward the Pacific they left an unbroken line of railroad behind them, reaching back to civilization, and a broken line of graves.

The towns that sprang up along the line and the mining camps that were opened by the railroad were wicked places for a time. The men were all murdered who filled the first twenty-six graves at Virginia City, Nev., and the place was not reckoned uncommonly tough at the time. Many good men, as well as bad ones, went down in the fight for the West. It cost blood to conquer the country, but what is Cuba to this? What is all the kingdom of Spain, compared with the vast empire that was thrown open when the last spike was driven in the first Pacific railroad?

The bad Indian and the outlaw shrank from the glare of the headlight of that great civilizer, the loco-

motive. In a little while the bad man was pushed aside or trampled upon by the vast army of honest, fearless, fair-fighting young men, the flower of this fair land, the bravest, best blood of the civilized world, who had come out to help develop the West that had been opened by the daring railroad engineer.

Presently the lawyer came to this lawless land, the life insurance agent, the preacher, and the play-actor, and finally a man and his wife—Martha and “Martha’s younkit”—and all the miners dropped their tools and went down to the camp at the bottom of the gulch to see the woman. Stubble-faced men gave small sacks of gold dust for the privilege of “kiss-in’ the kid.”

By-and-bye, when the good red man got used to the whistle of the locomotive, he came into the camp that the white man had made, and learned to work in the shops and mines.

The worthless Indian has perished—gone with the buffalo, the bad man, the stage coach, and the desert, for there is no desert now. Where a little while ago the sage and cactus grew, June roses bloom to-day. All this change has come about since the West was awakened by the first wild scream of the locomotive and the sun-dried plain was made to tremble under its whirling wheels. A thousand years of bull teams, handcarts, and pack trains could not have wrought what the railroad achieved here in a quarter of a century.

The grand, glorious, and still growing West could not have been made but for the railroad, and the railroad could only be built by the dauntless pioneers who

set their faces to the wilderness and held them there for five weary years, nor turned nor glanced back until the trail had been blazed and their tired feet felt the moist, cool sands of the Pacific. When the graders followed and the work was finished, two thousand miles of rails reached from the edge of civilization to the Golden Gate.

Many were missing when the roll was called. Some were sleeping in the broad prairies where the wild grass waved, some among the desert dunes, and others in the mountain passes. As I write this last page my countrymen are moistening two sides of the earth with their blood. These are heroes, and so were those pioneers who perished fighting for that magnificent West, the pride and glory of America.

THE END.

